

# Actuarial Section

In comparison to the more than \$2 billion in benefits disbursed by the Retirement Systems, personal income derived in the Palmetto State from the information industry was \$1.853 billion.

The main components of this category are the publishing industries, including software publishing, and both traditional publishing and publishing exclusively on the Internet; the motion picture and sound recording industries; the broadcasting industries, including traditional broadcasting and those broadcasting exclusively over the Internet; the telecommunications industries; Internet service providers and Web search portals; data processing industries; and the information services industries.

\*Based on Bureau of Economic Analysis data for 2007.



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November 20, 2008

State Budget and Control Board  
South Carolina Retirement Systems  
Columbia, South Carolina 29211

Re: Certification and Statement Regarding Actuarial Valuations as of July 1, 2007

Dear Members of the Board:

### **Applicable Laws**

The laws governing the operation of the various Retirement Systems provide that actuarial valuations of the assets and liabilities of the Systems shall be made annually for the South Carolina Retirement System and the Police Officers Retirement System and no less frequently than biennially for the General Assembly Retirement System and the Judges and Solicitors Retirement System. At your request, we have conducted an annual actuarial valuation of each of the four separate Retirement Systems as of July 1, 2007.

### **Funding Objective**

A funding objective of the Systems is that contribution rates will remain relatively level over time as a percentage of payroll. As these contribution rates are set by the Board, the valuation is used to determine the sufficiency of the contributions to maintain or improve the measures of the Systems' funding progress (i.e. *funded ratio*, *funding period*) and provide for the complete funding of all actuarial liabilities within 30 years.

### **Funding Methodology**

The entry age normal actuarial cost method determines each system's normal cost, the cost of the current year's benefit accrual, as a level percentage of the active member's payroll. Additionally, the method determines the actuarial liability, the value of benefits already earned by active and retired members due to past service. A smoothing technique is utilized to produce a market-related actuarial value of assets with the goal of dampening the impact of investment return volatility. The *funded ratio* is the actuarial value of assets as a percentage of the actuarial liability.

An unfunded actuarial liability exists to the extent a System's actuarial liability exceeds its actuarial value of assets. The contribution amount in excess of a system's normal cost is the level percentage of payroll available to amortize an unfunded actuarial liability. The System's *funding period* is the resulting number of years necessary to fully amortize an unfunded actuarial liability with the available contributions.

### **Assumptions**

Actuarial assumptions are necessary to estimate the future economic and demographic experience of the Systems. The actuarial assumptions were recommended by the prior actuary and adopted by the State Budget and Control Board based on a review of the System's experience completed during Fiscal Year 2004. Certain assumptions have been modified in order to recognize specific emerging trends in experience. We have reviewed these assumptions and believe they are reasonable.

The current actuarial assumptions and methods for each System are in accordance with the applicable Actuarial Standards of Practice, as well as the parameters set forth in the Governmental Accounting Standards Board (GASB) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*.



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The results and conclusions of this report are only valid for the July 1, 2007 plan year and should not be interpreted as applying in future years. Differences between our projections and actual amounts depend on the extent to which future experience conforms exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

### Data Reliance

In preparing the valuations, we, as the actuary, relied on data provided by the Systems. In fulfillment of the scope of our assignment, we performed a limited review of the data for consistency and reasonableness and did not find material defects in the census data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

### Supporting Schedules

Our firm, as actuary, is responsible for the actuarial trend data in the financial section of the report and the supporting schedules in the actuarial section, beginning with the information for the July 1, 2004. Information for previous years was supplied by other actuarial firms employed by the Systems at that time. Milliman's work product was prepared exclusively for the South Carolina Retirement Systems for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the Systems' operations, and uses data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

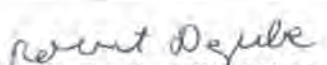
### Certification

Based on the results of the four July 1, 2007 valuations, we believe that the valuations appropriately reflect each plan's long term obligations and the current contribution levels are sufficient to fund the liabilities of each plan over a reasonable time frame, and based on these criteria may be deemed actuarially sound.

I, Robert Dezube, am a consulting actuary for Milliman. I am also a member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. On the basis of the foregoing, I certify that, to the best of my knowledge this report is complete and accurate and has been prepared in accordance with South Carolina's statutes and generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

Respectfully submitted,

Milliman, Inc.

  
Robert S. Dezube, FSA, MAAA  
Principal and Consulting Actuary

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## Actuarial Section

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### South Carolina Retirement System Valuation Balance Sheet As of Actuarial Valuation at July 1, 2007 (Amounts expressed in thousands)

	July 1, 2007
<b>1. <u>Assets</u></b>	
a. Current Assets (Actuarial Value)	
i) Employee Annuity Savings Fund	\$ 5,464,756
ii) Employer Annuity Accumulation Fund	18,076,682
iii) Total Current Assets	<u>\$ 23,541,438</u>
b. Present Value of Future Member Contributions	\$ 3,466,636
c. Present Value of Future Employer Contributions	
i) Normal Contributions	\$ 2,137,670
ii) Accrued Liability Contributions <sup>1</sup>	10,225,240
iii) Total Future Employer Contributions	<u>\$ 12,362,910</u>
d. Total Assets	<u><u>\$ 39,370,984</u></u>
<b>2. <u>Liabilities</u></b>	
a. Employee Annuity Savings Fund	
i) Past Member Contributions	\$ 5,464,756
ii) Present Value of Future Member Contributions <sup>2</sup>	3,624,231
iii) Total Contributions to Employee Annuity Savings Fund	<u>\$ 9,088,987</u>
b. Employer Annuity Accumulation Fund	
i) Benefits Currently in Payment (including TERI)	\$ 19,084,672
ii) Benefits to be Paid to Current Active Members (includes vested terminated members)	<u>11,197,325</u>
iii) Total Benefits Payable from Employer Annuity Accumulation Fund	<u>\$ 30,281,997</u>
c. Total Liabilities	<u><u>\$ 39,370,984</u></u>

<sup>1</sup>\$157,595 paid by future employee contributions as of July 1, 2007.

<sup>2</sup>Including future employee contributions towards accrued liability.

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## Actuarial Section

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### Police Officers Retirement System Valuation Balance Sheet As of Actuarial Valuation at July 1, 2007 (Amounts expressed in thousands)

	<u>July 1, 2007</u>
<b>1. <u>Assets</u></b>	
a. Current Assets (Actuarial Value)	
i) Employee Annuity Savings Fund	\$ 658,023
ii) Employer Annuity Accumulation Fund	2,502,217
iii) Total Current Assets	<u>\$ 3,160,240</u>
b. Present Value of Future Member Contributions	\$ 502,233
c. Present Value of Future Employer Contributions	
i) Normal Contributions	\$ 529,376
ii) Accrued Liability Contributions	570,304
iii) Total Future Employer Contributions	<u>\$ 1,099,680</u>
d. Total Assets	<u><u>\$ 4,762,153</u></u>
<b>2. <u>Liabilities</u></b>	
a. Employee Annuity Savings Fund	
i) Past Member Contributions	\$ 658,023
ii) Present Value of Future Member Contributions	502,233
iii) Total Contributions to Employee Annuity Savings Fund	<u>\$ 1,160,256</u>
b. Employer Annuity Accumulation Fund	
i) Benefits Currently in Payment	\$ 1,818,914
ii) Benefits to be Paid to Current Active Members (includes vested terminated members)	<u>1,782,983</u>
iii) Total Benefits Payable from Employer Annuity Accumulation Fund	<u>\$ 3,601,897</u>
c. Total Liabilities	<u><u>\$ 4,762,153</u></u>

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## Actuarial Section

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### General Assembly Retirement System Valuation Balance Sheet As of Actuarial Valuation at July 1, 2007 (Amounts expressed in thousands)

	July 1, 2007
<b>1. <u>Assets</u></b>	
a. Current Assets (Actuarial Value)	
i) Employee Annuity Savings Fund	\$ 7,735
ii) Employer Annuity Accumulation Fund	39,190
iii) Total Current Assets	<u>\$ 46,925</u>
b. Present Value of Future Member Contributions	\$ 2,425
c. Present Value of Future Employer Contributions	
i) Normal Contributions	\$ 2,027
ii) Accrued Liability Contributions	24,089
iii) Total Future Employer Contributions	<u>\$ 26,116</u>
d. Total Assets	<u><u>\$ 75,466</u></u>
<b>2. <u>Liabilities</u></b>	
a. Employee Annuity Savings Fund	
i) Past Member Contributions	\$ 7,735
ii) Present Value of Future Member Contributions*	2,425
iii) Total Contributions to Employee Annuity Savings Fund	<u>\$ 10,160</u>
b. Employer Annuity Accumulation Fund	
i) Benefits Currently in Payment	\$ 54,115
ii) Benefits to be Paid to Current Active Members (includes vested terminated members)	<u>11,191</u>
iii) Total Benefits Payable from Employer Annuity Accumulation Fund	<u>\$ 65,306</u>
c. Total Liabilities	<u><u>\$ 75,466</u></u>

\*Includes future special contributors

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## Actuarial Section

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### Judges and Solicitors Retirement System Valuation Balance Sheet As of Actuarial Valuation at July 1, 2007 (Amounts expressed in thousands)

	July 1, 2007
<b>1. <u>Assets</u></b>	
a. Current Assets (Actuarial Value)	
i) Employee Annuity Savings Fund	\$ 18,999
ii) Employer Annuity Accumulation Fund	113,991
iii) Total Current Assets	<u>\$ 132,990</u>
b. Present Value of Future Member Contributions	\$ 10,102
c. Present Value of Future Employer Contributions	
i) Normal Contributions	\$ 14,678
ii) Accrued Liability Contributions	96,398
iii) Total Prospective Employer Contributions	<u>\$ 111,076</u>
d. Total Assets	<u><u>\$ 254,168</u></u>
<b>2. <u>Liabilities</u></b>	
a. Employee Annuity Savings Fund	
i) Past Member Contributions	\$ 18,999
ii) Present Value of Future Member Contributions	10,102
iii) Total Contributions to Employee Annuity Savings Fund	<u>\$ 29,101</u>
b. Employer Annuity Accumulation Fund	
i) Benefits Currently in Payment	\$ 149,435
ii) Benefits to be Paid to Current Active Members (includes vested terminated members)	75,632
iii) Total Benefits Payable from Employer Annuity Accumulation Fund	<u>\$ 225,067</u>
c. Total Liabilities	<u><u>\$ 254,168</u></u>



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### South Carolina Retirement System Results of the Valuation as of July 1, 2007 (Dollar amounts expressed in thousands)

	July 1, 2007
<b>1. <u>Actuarial Present Value of Future Benefits</u></b>	
a. Present Retired Members and Beneficiaries	\$ 19,084,672
b. Present Active and Inactive Members	20,286,312
c. Total Actuarial Present Value	<u>\$ 39,370,984</u>
<b>2. <u>Present Value of Future Normal Contributions</u></b>	
a. Employee	\$ 3,604,304
b. Employer	2,000,002
c. Total Future Normal Contributions	<u>\$ 5,604,306</u>
<b>3. <u>Actuarial Liability</u></b>	\$ 33,766,678
<b>4. <u>Current Actuarial Value of Assets</u></b>	\$ 23,541,438
<b>5. <u>Unfunded Actuarial Liability</u></b>	\$ 10,225,240
<b>6. <u>Unfunded Actuarial Liability Rates</u></b>	
a. Active Members	4.94%
b. TERI Members (including employee contributions) <sup>1</sup>	15.56%
c. ORP Members	4.06%
d. Reemployed Members (including employee contributions)	15.56%
	29 years
<b>7. <u>Unfunded Actuarial Liability Liquidation Period</u></b>	

<sup>1</sup> TERI participants who entered TERI before July 1 2005, do not make employee contributions.

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### Police Officers Retirement System Results of the Valuation as of July 1, 2007 (Dollar amounts expressed in thousands)

	July 1, 2007
<b>1. <u>Actuarial Present Value of Future Benefits</u></b>	
a. Present Retired Members and Beneficiaries	\$ 1,818,914
b. Present Active and Inactive Members	2,943,239
c. Total Actuarial Present Value	\$ 4,762,153
<b>2. <u>Present Value of Future Normal Contributions</u></b>	
a. Employee	\$ 502,233
b. Employer	529,376
c. Total Future Normal Contributions	\$ 1,031,609
	\$ 3,730,544
<b>3. <u>Actuarial Liability</u></b>	
	\$ 3,160,240
<b>4. <u>Current Actuarial Value of Assets</u></b>	
	\$ 570,304
<b>5. <u>Unfunded Actuarial Liability</u></b>	
	3.22%
<b>6. <u>Unfunded Actuarial Liability Rates</u></b>	
	16 years
<b>7. <u>Unfunded Actuarial Liability Liquidation Period</u></b>	

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## Actuarial Section

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### General Assembly Retirement System Results of the Valuation as of July 1, 2007 (Dollar amounts expressed in thousands)

	July 1, 2007
<b>1. <u>Actuarial Present Value of Future Benefits</u></b>	
a. Present Retired Members and Beneficiaries	\$ 54,115
b. Present Active and Inactive Members	21,351
c. Total Actuarial Present Value	<u>\$ 75,466</u>
<b>2. <u>Present Value of Future Normal Contributions</u></b>	
a. Employee	\$ 2,175
b. Special Contributors	250
c. Employer	<u>2,027</u>
d. Total Future Normal Contributions	<u>\$ 4,452</u>
<b>3. <u>Actuarial Liability</u></b>	\$ 71,014
<b>4. <u>Current Actuarial Value of Assets</u></b>	\$ 46,925
<b>5. <u>Unfunded Actuarial Liability</u></b>	\$ 24,089
<b>6. <u>Unfunded Actuarial Liability Liquidation Period</u></b>	18 years

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## Actuarial Section

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### Judges and Solicitors Retirement System Results of the Valuation as of July 1, 2007 (Dollar amounts expressed in thousands)

	July 1, 2007
<b>1. <u>Actuarial Present Value of Future Benefits</u></b>	
a. Present Retired Members and Beneficiaries	\$ 149,435
b. Present Active and Inactive Members	104,733
c. Total Actuarial Present Value	<u>\$ 254,168</u>
<b>2. <u>Present Value of Future Normal Contributions</u></b>	
a. Employee	\$ 10,102
b. Employer	14,678
c. Total Future Normal Contributions	<u>\$ 24,780</u>
<b>3. <u>Actuarial Liability</u></b>	\$ 229,388
<b>4. <u>Current Actuarial Value of Assets</u></b>	\$ 132,990
<b>5. <u>Unfunded Actuarial Liability</u></b>	\$ 96,398
<b>6. <u>Unfunded Actuarial Liability Rates</u></b>	30.41%
<b>7. <u>Unfunded Actuarial Liability Liquidation Period</u></b>	28 years

# Actuarial Section

## South Carolina Retirement System Summary of Actuarial Assumptions and Methods

### 1. Investment Return to be Earned by Fund

7.25 percent per annum, compounded annually, composed of an assumed 3.00 percent inflation rate and a 4.25 percent real rate of return, net of investment and administrative expenses.

### 2. Salary Increases

Salary increases are assumed in accordance with the following representative rates:

Annual Increase			Annual Increase		
Years of Service	General Employees	Teachers	Years of Service	General Employees	Teachers
0	8.00%	8.00%	8	4.50%	4.75%
1	5.75%	8.00%	9	4.50%	4.75%
2	5.00%	5.50%	10	4.25%	4.75%
3	4.75%	5.25%	11	4.25%	4.50%
4	4.50%	5.00%	12	4.25%	4.40%
5	4.50%	5.00%	13	4.25%	4.40%
6	4.50%	5.00%	14	4.25%	4.40%
7	4.50%	4.75%	15+	4.00%	4.00%

### 3. Decrement Rates

#### a. Service Retirement

Annual Rates of					
		Unreduced Service Retirement*		Reduced Service Retirement	
		Male	Female	Male	Female
Employees	Age				
	50	12%	14%		
	55	15%	18%	5%	10%
	60	20%	20%	5%	11%
	61	20%	20%	15%	15%
	62	30%	35%	27%	28%
	63	30%	30%	16%	20%
	64	30%	35%	22%	20%
	65	40%	40%		
	66	20%	25%		
	67	20%	25%		
	68	20%	25%		
	69	20%	25%		
	70	100%	100%		
Teachers	50	14%	15%		
	55	18%	25%	6%	9%
	60	25%	25%	14%	15%
	61	30%	40%	18%	20%
	62	20%	35%	25%	25%
	63	20%	25%	28%	20%
	64	35%	30%	28%	30%
	65	45%	40%		
	66	23%	23%		
	67	23%	23%		
	68	23%	23%		
	69	23%	23%		
	70	100%	100%		

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\*Plus the following percentage in the year when they first become eligible for unreduced service retirement before age 65.

	<u>General Employees</u>	<u>Teachers</u>
Male	30%	30%
Female	30%	30%

b. Valuation of Teachers and Employees Retention Incentive (TERI)

It is assumed that 40 percent of all members elect TERI coverage prior to age 60 and 60 percent elect between age 60 and 65 when first eligible for an unreduced retirement benefit. It is also assumed that members in TERI are exposed to adjusted retirement rates during TERI coverage and 100 percent terminate employment at the end of the TERI period (five years). The retirement rate is adjusted by the following schedule based on number of years since entering TERI:

<u>Years Since Entering TERI Program</u>	<u>Multiple of Unreduced Retirement Table</u>
0.00 - 0.99	50%
1.00 - 1.99	65%
2.00 - 2.99	80%
3.00 - 3.99	90%
4.00 - 4.99	100%
5.00	All members assumed to retire immediately

c. In-Service Mortality and Disability

<u>Annual Rates of</u>								
<u>Age</u>	<u>Mortality</u>				<u>Disability</u>			
	<u>Employees</u>		<u>Teachers</u>		<u>Employees</u>		<u>Teachers</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
25	0.04%	0.01%	0.03%	0.01%	0.06%	0.05%	0.04%	0.05%
30	0.04%	0.02%	0.03%	0.01%	0.12%	0.07%	0.06%	0.07%
35	0.08%	0.03%	0.06%	0.03%	0.17%	0.15%	0.08%	0.07%
40	0.11%	0.05%	0.08%	0.04%	0.29%	0.19%	0.16%	0.13%
45	0.15%	0.07%	0.11%	0.06%	0.40%	0.27%	0.26%	0.26%
50	0.21%	0.11%	0.16%	0.09%	0.58%	0.46%	0.42%	0.42%
55	0.30%	0.16%	0.23%	0.14%	0.92%	0.74%	0.68%	0.68%
60	0.49%	0.26%	0.37%	0.22%	1.15%	1.12%	1.05%	1.05%
64	0.70%	0.35%	0.53%	0.30%	1.44%	1.56%	1.31%	1.31%



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d. Withdrawal Rates

### Probability of Decrement Due to Withdrawal

Years of Service - Male Teachers											
Age	0	1	2	3	4	5	6	7	8	9	10+
25	0.2964	0.2029	0.1384	0.0973	0.0721	0.0578	0.0513	0.0508	0.0518	0.0538	0.0560
30	0.2721	0.1922	0.1356	0.0990	0.0776	0.0662	0.0607	0.0577	0.0538	0.0477	0.0387
35	0.2531	0.1823	0.1316	0.0990	0.0805	0.0708	0.0657	0.0611	0.0540	0.0429	0.0273
40	0.2371	0.1730	0.1271	0.0979	0.0817	0.0730	0.0679	0.0619	0.0529	0.0390	0.0199
45	0.2239	0.1649	0.1228	0.0960	0.0811	0.0726	0.0669	0.0600	0.0503	0.0359	0.0167
50	0.2135	0.1587	0.1192	0.0936	0.0787	0.0698	0.0628	0.0553	0.0460	0.0335	0.0174
55	0.2063	0.1549	0.1168	0.0908	0.0742	0.0645	0.0557	0.0479	0.0401	0.0317	0.0222
60	0.1996	0.1518	0.1143	0.0865	0.0669	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

### Probability of Decrement Due to Withdrawal

Years of Service - Female Teachers											
Age	0	1	2	3	4	5	6	7	8	9	10+
25	0.2299	0.1608	0.1209	0.1006	0.0892	0.0841	0.0827	0.0802	0.0731	0.0660	0.0601
30	0.2269	0.1664	0.1260	0.1015	0.0878	0.0802	0.0751	0.0696	0.0618	0.0527	0.0426
35	0.2171	0.1597	0.1208	0.0966	0.0830	0.0748	0.0682	0.0615	0.0536	0.0434	0.0303
40	0.2045	0.1477	0.1106	0.0885	0.0759	0.0683	0.0616	0.0551	0.0475	0.0368	0.0215
45	0.1930	0.1361	0.1001	0.0798	0.0685	0.0619	0.0561	0.0504	0.0435	0.0329	0.0163
50	0.1866	0.1296	0.0937	0.0738	0.0633	0.0570	0.0523	0.0478	0.0417	0.0317	0.0154
55	0.1879	0.1308	0.0935	0.0727	0.0626	0.0543	0.0509	0.0474	0.0420	0.0331	0.0190
60	0.1948	0.1379	0.0986	0.0758	0.0660	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

### Probability of Decrement Due to Withdrawal

Years of Service - Male Employees											
Age	0	1	2	3	4	5	6	7	8	9	10+
25	0.3288	0.2466	0.1902	0.1554	0.1345	0.1166	0.0963	0.0783	0.0650	0.0595	0.0662
30	0.2939	0.2211	0.1726	0.1425	0.1236	0.1089	0.0951	0.0821	0.0704	0.0603	0.0530
35	0.2678	0.1997	0.1553	0.1285	0.1122	0.1010	0.0916	0.0822	0.0716	0.0586	0.0424
40	0.2456	0.1804	0.1384	0.1140	0.1002	0.0922	0.0861	0.0791	0.0695	0.0549	0.0335
45	0.2257	0.1636	0.1233	0.1003	0.0882	0.0825	0.0781	0.0727	0.0639	0.0493	0.0266
50	0.2082	0.1501	0.1115	0.0891	0.0774	0.0717	0.0675	0.0626	0.0547	0.0419	0.0224
55	0.1942	0.1410	0.1041	0.0814	0.0691	0.0600	0.0543	0.0488	0.0419	0.0328	0.0212
60	0.1827	0.1351	0.1002	0.0770	0.0632	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

### Probability of Decrement Due to Withdrawal

Years of Service - Female Employees											
Age	0	1	2	3	4	5	6	7	8	9	10+
25	0.2981	0.2459	0.2060	0.1772	0.1560	0.1385	0.1248	0.1159	0.1094	0.1030	0.0940
30	0.2710	0.2236	0.1864	0.1591	0.1395	0.1253	0.1145	0.1059	0.0970	0.0853	0.0688
35	0.2506	0.2015	0.1657	0.1410	0.1244	0.1130	0.1042	0.0958	0.0857	0.0712	0.0505
40	0.2329	0.1803	0.1451	0.1233	0.1101	0.1010	0.0935	0.0854	0.0748	0.0592	0.0367
45	0.2172	0.1622	0.1275	0.1080	0.0972	0.0894	0.0825	0.0746	0.0644	0.0493	0.0276
50	0.2041	0.1493	0.1151	0.0966	0.0864	0.0787	0.0715	0.0637	0.0543	0.0414	0.0234
55	0.1946	0.1429	0.1091	0.0895	0.0778	0.0688	0.0605	0.0526	0.0445	0.0353	0.0240
60	0.1873	0.1412	0.1079	0.0855	0.0701	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note: No probability of withdrawal is applied to members eligible to retire.

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## Actuarial Section

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### 4. Mortality After Retirement

For healthy retirees and beneficiaries, the UP-94 Mortality Table rates is used, with the female rates set back one year. A separate table of mortality rates is used for disabled retirees. The following are sample rates:

<u>Age</u>	<u>Healthy</u>		<u>Disabled</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
50	0.28%	0.14%	3.06%	2.31%
55	0.48%	0.22%	3.86%	2.66%
60	0.86%	0.42%	4.82%	2.98%
65	1.56%	0.82%	5.42%	3.33%
70	2.55%	1.37%	5.91%	3.70%
75	4.00%	2.19%	6.74%	4.43%
80	6.67%	3.80%	9.02%	6.71%
85	10.46%	6.56%	13.45%	10.15%

### 5. Marriage Assumption

One hundred percent of all active members are assumed to be married, with female spouses being three years younger.

### 6. Asset Valuation Method

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected market investment return (including the return on TERI balances) and actual net investment income with the resulting value not being less than 80 percent or more than 120 percent of the market value of assets.

### 7. Cost Methods

#### a. Normal Retirement, Termination, Death and Disability Benefits

The contribution rate is set by statute for employees and for the employers. The funding period is determined, as described below, using the Entry Age Normal actuarial cost method.

The Entry Age Normal actuarial cost method assigns the plan's total unfunded liabilities (the actuarial present value of future benefits less the actuarial value of assets) to various periods. The unfunded actuarial liability is assigned to years prior to the valuation, and the normal cost is assigned to the year following the valuation. The remaining costs are the normal costs for future years. Then each year's contribution is composed of (i) that year's normal cost, plus (ii) a payment used to reduce the unfunded actuarial liability.

The normal cost is the level (as a percentage of pay) contribution required to fund the benefits for all current members. Part of the normal cost is paid from the employees' own contributions. The employers pay the balance from their contributions. The method used for this valuation sets the present value of future normal costs that are to be paid by the employees as 6.50 percent of their present value of future earnings.

The actuarial liability is the difference between the total present value of future benefits and the actuarial present value of future normal costs. The unfunded actuarial liability is the excess of the actuarial liability over the actuarial value of assets.

The balance of the employers' contributions – the remainder after paying their share of the normal cost – is used to reduce the unfunded actuarial liability. The calculation of the amortization period takes into account increases to contribution rates applicable to future years, payroll growth, and the results are rounded to the nearest year. Also, the calculation of the amortization period reflects additional contributions the System receives with respect to post July 1, 2005, TERI participants, ORP

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## Actuarial Section

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participants, and return-to-work retirees. These contributions are assumed to grow at the same payroll growth rate as for active SCRS employees.

It is assumed that amortization payments are made monthly at the end of the month.

b. Group Life Insurance Benefit

One-year term cost method.

8. Unused Annual Leave

To account for the effect of unused annual leave on Average Final Compensation, liabilities for active members are increased 2.14 percent.

9. Unused Sick Leave

To account for the effect of unused sick leave on members' final credited service, the service of active members who retire is increased three months.

10. Future Cost-of-Living Increases

Benefits are assumed to increase 1 percent annually beginning on the July 1st next following receipt of 12 monthly payments.

11. Administrative and Investment Expenses

The investment return assumption represents the expected return net of all administrative and investment expenses.

12. Payroll Growth Rate

4.00 percent per annum.

13. Recommended Changes from Prior Valuation

Recognize the expected return on the total of TERI account balances when calculating the amount of market value gains and losses to defer in the determination of the actuarial value of assets.

14. Adoption Date

The current actuarial assumptions and methods were adopted by the State Budget and Control Board on April 20, 2004. The rate of election for TERI and retirement rates were approved by the Board on May 16, 2006.

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## Actuarial Section

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### South Carolina Retirement System Development of Actuarial Value of Assets *(Amounts expressed in thousands)*

Item	Valuation as of July 1, 2007
1. Excess (Shortfall) of Investment Income for Current Year and Previous Three Years:	
a. Current Year	\$ 1,339,490
b. Current Year - 1	(435,359)
c. Current Year - 2	(14,499)
d. Current Year - 3	\$ 330,912
2. Deferral of Excess (Shortfall) of Investment Income for:	
a. Current Year (80% Deferral)	\$ 1,071,592
b. Current Year - 1 (60% Deferral)	(261,215)
c. Current Year - 2 (40% Deferral)	(5,800)
d. Current Year - 3 (20% Deferral)	66,182
e. Total Deferred for Year	<u>\$ 870,759</u>
3. Market Value of Plan Assets, End of Year	\$ 24,412,197
4. Preliminary Actuarial Value of Plan Assets, End of Year (Item 3 - Item 2.e.)	\$ 23,541,438
5. Actuarial Value of Assets Corridor	
a. 80% of Market Value of Assets, End of Year	\$ 19,529,758
b. 120% of Market Value of Assets, End of Year	\$ 29,294,636
6. Final Actuarial Value of Plan Assets, End of Year (Item 4., But Not Less Than Item 5.a., or Greater Than Item 5.b.)	\$ 23,541,438

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## Actuarial Section

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### Police Officers Retirement System Summary of Actuarial Assumptions and Methods

1. Investment Return to be Earned by Fund

7.25 percent per annum, compounded annually, composed of an assumed 3.00 percent inflation rate and a 4.25 percent real rate of return, net of investment and administrative expenses.

2. Salary Increases

Salary increases are assumed in accordance with the following representative rates:

<u>Years of Service</u>	<u>Annual Increase</u>	<u>Years of Service</u>	<u>Annual Increase</u>
0	11.50%	8	4.75%
1	6.75%	9	4.75%
2	5.75%	10	4.75%
3	5.50%	11	4.75%
4	5.25%	12	4.50%
5	5.00%	13	4.50%
6	4.75%	14	4.50%
7	4.75%	15+	4.50%

3. Decrement Rates

The following are representative values of the assumed annual rates of withdrawal, inservice mortality, disability, and service retirement.

a. Service Retirement, Mortality, and Disability:

<u>Age</u>	<u>Annual Rate of</u>		
	<u>Service Retirement*</u>	<u>Mortality</u>	<u>Disability</u>
20		0.03%	0.12%
25		0.03%	0.14%
30		0.04%	0.18%
35		0.07%	0.35%
40		0.10%	0.46%
45	20.00%	0.14%	0.69%
50	20.00%	0.19%	0.86%
55	14.00%	0.27%	
60	15.00%	0.44%	
64	25.00%	0.63%	

\*Plus an additional 22 percent for participants under age 55 in year when first eligible for unreduced service retirement.

All employees are assumed to retire at age 65. In addition, 25 percent of disabilities are assumed to be duty-related, and 5 percent of pre-retirement deaths are assumed to be accidental (duty-related).

## Actuarial Section

b. Withdrawal:

Probability of Decrement Due to Withdrawal											
Years of Service											
Age	0	1	2	3	4	5	6	7	8	9	10+
25	0.2494	0.1816	0.1342	0.1047	0.0885	0.0780	0.0715	0.0640	0.0545	0.0524	0.0618
30	0.2478	0.1822	0.1376	0.1107	0.0959	0.0876	0.0810	0.0732	0.0633	0.0545	0.0481
35	0.2450	0.1795	0.1359	0.1104	0.0967	0.0899	0.0837	0.0763	0.0665	0.0539	0.0381
40	0.2398	0.1739	0.1304	0.1055	0.0927	0.0868	0.0814	0.0747	0.0653	0.0510	0.0305
45	0.2312	0.1649	0.1212	0.0964	0.0845	0.0783	0.0738	0.0681	0.0595	0.0458	0.0256
50	0.2193	0.1532	0.1090	0.0839	0.0730	0.0646	0.0610	0.0564	0.0490	0.0382	0.0236
55	0.2050	0.1393	0.0944	0.0684	0.0587						
60	0.1871	0.1228	0.0773	0.0503	0.0419						

Note: No probability of withdrawal is applied to members eligible to retire.

#### 4. Mortality After Retirement

For healthy retirees and beneficiaries, the UP-94 Mortality Table rates is used, with female rates set back one year and male rates set forward three years. A separate table of mortality rates is used for disabled retirees. The following are sample rates for the retirees and beneficiaries:

Age	Healthy		Disabled
	Male	Female	All
50	0.39%	0.14%	2.30%
55	0.68%	0.22%	2.89%
60	1.23%	0.42%	3.62%
65	2.14%	0.82%	4.07%
70	3.35%	1.37%	4.43%
75	5.40%	2.19%	5.05%
80	8.87%	3.80%	6.77%
85	13.65%	6.56%	10.09%

#### 5. Marriage Assumption

One hundred percent of all active members are assumed to be married, with female spouses being four years younger.

#### 6. Asset Valuation Method

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected investment return and actual net income (both based on market value) with the resulting value not being less than 80 percent or more than 120 percent of the market value of assets.

#### 7. Cost Methods

##### a. Normal Retirement, Termination, Death and Disability Benefits

Projected benefit method with level percentage entry age normal cost. Gains and losses are reflected in the period remaining to liquidate the unfunded actuarial liability. The resulting amortization period is based upon payments level as a percentage of payroll and the results are rounded to the nearest year. We completed a separate valuation of the accidental (duty-related) death benefit.

##### b. Group Life Insurance Benefit and Accidental Death Benefits

One-year term cost method.



## Actuarial Section

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**8. Unused Annual Leave**

To account for the effect of unused annual leave on Average Final Compensation, liabilities for active members are increased 3.75 percent.

**9. Unused Sick Leave**

To account for the effect of unused sick leave on members' final credited service, the service of active members who retire is increased three months.

**10. Future Cost-of-Living Increases**

None assumed.

**11. Administrative and Investment Expenses**

The investment return assumption represents the expected return net of all administrative and investment expenses.

**12. Payroll Growth Rate**

4.00 percent per annum.

**13. Changes from Prior Valuation**

None.

**14. Adoption Date**

The current actuarial assumptions and methods were adopted by the State Budget and Control Board on April 20, 2004.

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## Actuarial Section

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### Police Officers Retirement System Development of Actuarial Value of Assets (Amounts expressed in thousands)

Item	Valuation as of July 1, 2007
1. Excess (Shortfall) of Investment Income for Current Year and Previous Three Years:	
a. Current Year	\$ 156,569
b. Current Year - 1	(65,188)
c. Current Year - 2	(18,170)
d. Current Year - 3	\$ 31,828
2. Deferral of Excess (Shortfall) of Investment Income for:	
a. Current Year (80% Deferral)	\$ 125,255
b. Current Year - 1 (60% Deferral)	(39,113)
c. Current Year - 2 (40% Deferral)	(7,268)
d. Current Year - 3 (20% Deferral)	6,366
e. Total Deferred for Year	<u>\$ 85,240</u>
3. Market Value of Plan Assets, End of Year	\$ 3,245,480
4. Preliminary Actuarial Value of Plan Assets, End of Year (Item 3 - Item 2.e.)	\$ 3,160,240
5. Actuarial Value of Assets Corridor	
a. 80% of Market Value of Assets, End of Year	\$ 2,596,384
b. 120% of Market Value of Assets, End of Year	\$ 3,894,576
6. Final Actuarial Value of Plan Assets, End of Year (Item 4., But Not Less Than Item 5.a., or Greater Than Item 5.b.)	\$ 3,160,240

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## Actuarial Section

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### General Assembly Retirement System Summary of Actuarial Assumptions and Methods

1. Investment Return to be Earned by Fund

7.25 percent per annum, compounded annually, composed of an assumed 3.00 percent inflation rate and a 4.25 percent real rate of return, net of investment and administrative expenses.

2. Salary Increases

None assumed.

3. Decrement Rates

The following are representative values of the assumed annual rates of in-service mortality, disability, and service retirement. No withdrawals are assumed. All members who are not re-elected are assumed to continue paying the member rate as a special contributor.

a. Unreduced Service Retirement

<u>Age</u>	<u>Rates of Retirement</u>
60 & under	40%
61	7%
62	7%
63	7%
64	7%
65	15%
66	15%
67	15%
68	15%
69	15%
70 & older	100%

In addition, members with 30 years of service are assumed to commence benefit payments immediately even if they do not terminate employment.

b. In-service Mortality and Disability

<u>Age</u>	<u>Annual Rates of</u>			
	<u>Mortality</u>		<u>Disability</u>	
	<u>Employees</u>		<u>Employees</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
25	0.04%	0.01%	0.06%	0.05%
30	0.04%	0.02%	0.12%	0.07%
35	0.08%	0.03%	0.17%	0.15%
40	0.11%	0.05%	0.29%	0.19%
45	0.15%	0.07%	0.40%	0.27%
50	0.21%	0.11%	0.58%	0.46%
55	0.30%	0.16%	0.92%	0.74%
60	0.49%	0.26%	1.15%	1.12%
64	0.70%	0.35%	1.44%	1.56%

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## Actuarial Section

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### 4. Mortality After Retirement

For healthy retirees and beneficiaries, the UP-94 Mortality Table rates, with the female rates set back one year. A separate table of mortality rates is used for disabled retirees. The following are sample rates:

Age	Healthy		Disabled	
	Male	Female	Male	Female
50	0.28%	0.14%	3.06%	2.31%
55	0.48%	0.22%	3.86%	2.66%
60	0.86%	0.42%	4.82%	2.98%
65	1.56%	0.82%	5.42%	3.33%
70	2.55%	1.37%	5.91%	3.70%
75	4.00%	2.19%	6.74%	4.43%
80	6.67%	3.80%	9.02%	6.71%
85	10.46%	6.56%	13.45%	10.15%

### 5. Marriage Assumption

One hundred percent of all active and special contributor members are assumed to be married, with female spouses being four years younger.

### 6. Asset Valuation Method

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected investment return and actual net income (both based on market value) with the resulting value not being less than 80 percent or more than 120 percent of the market value of assets.

### 7. Cost Method

Projected benefit method with level percentage entry age normal cost and a closed, level-dollar amortization of the unfunded actuarial accrued liability.

### 8. Future Cost-of-Living Increases

None assumed.

### 9. Payroll Growth Rate

None assumed.

### 10. Administrative and Investment Expenses

The investment return assumption represents the expected return net of all administrative and investment expenses.

### 11. Changes from Prior Valuation

None.

### 12. Adoption Date

The current actuarial assumptions and methods were adopted by the State Budget and Control Board on May 4, 2004.

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## Actuarial Section

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### General Assembly Retirement System Development of Actuarial Value of Assets (Amounts expressed in thousands)

Item	Valuation as of July 1, 2007
1. Excess (Shortfall) of Investment Income for Current Year and Previous Three Years:	
a. Current Year	\$ 2,715
b. Current Year - 1	(1,220)
c. Current Year - 2	(9)
d. Current Year - 3	\$ 927
2. Deferral of Excess (Shortfall) of Investment Income for:	
a. Current Year (80% Deferral)	\$ 2,172
b. Current Year - 1 (60% Deferral)	(732)
c. Current Year - 2 (40% Deferral)	(4)
d. Current Year - 3 (20% Deferral)	185
e. Total Deferred for Year	<u>\$ 1,621</u>
3. Market Value of Plan Assets, End of Year	\$ 48,546
4. Preliminary Actuarial Value of Plan Assets, End of Year (Item 3 - Item 2.e.)	\$ 46,925
5. Actuarial Value of Assets Corridor	
a. 80% of Market Value of Assets, End of Year	\$ 38,837
b. 120% of Market Value of Assets, End of Year	\$ 58,255
6. Final Actuarial Value of Plan Assets, End of Year (Item 4., But Not Less Than Item 5.a., or Greater Than Item 5.b.)	\$ 46,925

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## Actuarial Section

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### Judges and Solicitors Retirement System Summary of Actuarial Assumptions and Methods

1. **Investment Return to be Earned by Fund**

7.25 percent per annum, compounded annually, composed of an assumed 3.00 percent inflation rate and a 4.25 percent real rate of return, net of investment and administrative expenses.

2. **Salary Increases**

3.25 percent per annum, compounded annually.

3. **Disability and Pre-retirement Mortality Rates**

The following are representative values of the assumed annual rates of disability and pre-retirement death:

<u>Age</u>	<u>Annual Rates of</u>			
	<u>Mortality</u>		<u>Disability</u>	
	<u>Employees</u>		<u>Employees</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
25	0.06%	0.03%	0.04%	0.05%
30	0.07%	0.04%	0.06%	0.07%
35	0.07%	0.04%	0.08%	0.07%
40	0.10%	0.05%	0.15%	0.12%
45	0.18%	0.08%	0.25%	0.25%
50	0.30%	0.13%	0.40%	0.40%
55	0.46%	0.21%	0.65%	0.65%
60	0.65%	0.33%	1.00%	1.00%
65	0.99%	0.54%	1.25%	1.25%

No in-service withdrawals are assumed.

4. **Mortality After Retirement**

For healthy retirees and beneficiaries, the 1983 Group Annuity Mortality Table rates. A separate table of mortality rates is used for disabled retirees. The following are sample rates for the healthy retirees and beneficiaries:

<u>Age</u>	<u>Male</u>	<u>Female</u>
60	0.92%	0.42%
65	1.56%	0.71%
70	2.75%	1.24%
75	4.46%	2.40%
80	7.41%	4.29%
85	11.48%	6.99%



## Actuarial Section

### 5. Normal Retirement Assumption

Rates differ based upon the member being eligible to Retire in Place (RIP) prior to reaching age 72. Upon meeting the retirement eligibility requirement, participants are assumed to retire at the following rates:

**Normal Retirement Assumption**

<u>Solicitors</u>				<u>Judges</u>			
Age	Service	% RIP Eligible	% Not RIP Eligible	Age	Service	% Retiring	% Not RIP Eligible
70 to 72	15 to 19	12	12	70 to 72	15 to 19	12	12
65 to 69	20 to 23	40	40	65 to 69	20 to 24	40	40
Any	24	20	40	Any	25	15	25
Any	25	15	25	Any	26	10	15
Any	26	10	12	Any	27	10	15
Any	27	10	12	Any	28	10	15
Any	28	10	12	Any	29	10	15
Any	29	5	12	Any	30	5	15
Any	30	5	12	Any	31	5	15
Any	31*	12*	35	Any	32*	12*	35
Any	32+	12	12	Any	33+	12	15

\*Additionally, the remaining 88 percent of eligible members are assumed to Retire in Place. 100 percent of participants are assumed to retire upon reaching the mandatory retirement age of 72.

### 6. Marriage Assumption

Ninety-five percent of all active members are assumed to be married with female spouses being three years younger.

### 7. Asset Valuation Method

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected investment return and actual net income (both based on market value) with the resulting value not being less than 80 percent or more than 120 percent of the market value of assets.

### 8. Cost Methods

Projected benefit method with level percentage entry age normal cost. Gains and losses are reflected in the period remaining to liquidate the unfunded actuarial accrued liability. The calculation of the amortization period takes into account future increases to contribution rates applicable to future years, payroll growth and the results are rounded to the nearest year.

### 9. Future Cost-of-Living Increases

3.25 percent per annum.

### 10. Administrative and Investment Expenses

The investment return assumption represents the expected return net of all administrative and investment expenses.

### 11. Payroll Growth Rate

3.25 percent per annum.

### 12. Changes from Prior Valuation

The retirement assumption has been modified to reflect the expected behavior under the new retire in place provisions. It is now assumed that 100 percent of eligible members that have accrued the maximum benefit that do not elect to retire, elect to retire in place.

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## Actuarial Section

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### 13. Adoption Date

The current actuarial assumptions, except for the retirement rate assumption, were adopted by the State Budget and Control Board on April 20, 2004. The retirement rates were approved by the Board on May 16, 2006.

### Judges and Solicitors Retirement System Development of Actuarial Value of Assets (Amounts expressed in thousands)

Item	Valuation as of July 1, 2007
1. Excess (Shortfall) of Investment Income for Current Year and Previous Three Years:	
a. Current Year	\$ 7,052
b. Current Year - 1	(2,921)
c. Current Year - 2	(31)
d. Current Year - 3	1,619
2. Deferral of Excess (Shortfall) of Investment Income for:	
a. Current Year (80% Deferral)	\$ 5,642
b. Current Year - 1 (60% Deferral)	(1,753)
c. Current Year - 2 (40% Deferral)	(12)
d. Current Year - 3 (20% Deferral)	324
e. Total Deferred for Year	\$ 4,201
3. Market Value of Plan Assets, End of Year	\$ 137,191
4. Preliminary Actuarial Value of Plan Assets, End of Year (Item 3 - Item 2.e.)	\$ 132,990
5. Actuarial Value of Assets Corridor	
a. 80% of Market Value of Assets, End of Year	\$ 109,753
b. 120% of Market Value of Assets, End of Year	\$ 164,629
6. Final Actuarial Value of Plan Assets, End of Year (Item 4., But Not Less Than Item 5.a., or Greater Than Item 5.b.)	\$ 132,990

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## Actuarial Section

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### South Carolina Retirement System Schedule of Active Member Valuation Data\* As of July 1, 2007

Valuation Date	Number of Employers	Number of Active Members	Annual Payroll (in thousands)	Annual Average Pay	Percentage Increase In Average Pay
7-01-07	777	187,968	\$ 7,093,181	\$ 37,736	3.28%
7-01-06	763	184,282	6,733,379	36,538	4.06%
7-01-05	768	181,022	6,356,489	35,114	3.30%
7-01-04	763	181,827	6,180,599	33,992	1.06%
7-01-03	763	185,538	6,240,768	33,636	3.50%
7-01-02	746	189,166	6,147,712	32,499	3.42%
7-01-01	739	191,494	6,017,537	31,424	5.15%
7-01-00	729	196,825	5,881,847	29,884	5.49%
7-01-99	726	193,213	5,473,759	28,330	3.83%
7-01-98	720	190,259	5,191,048	27,284	2.78%

\*Does not include Teacher and Employee Retention Incentive (TERI) participants.

### Police Officers Retirement System Schedule of Active Member Valuation Data As of July 1, 2007

Valuation Date	Number of Employers	Number of Active Members	Annual Payroll (in thousands)	Annual Average Pay	Percentage Increase In Average Pay
7-01-07	313	25,645	\$ 992,849	\$ 38,715	3.09%
7-01-06	314	24,813	931,815	37,554	5.05%
7-01-05	314	23,795	850,610	35,747	3.16%
7-01-04	314	23,734	822,448	34,653	3.35%
7-01-03	314	23,871	800,394	33,530	6.08%
7-01-02	302	23,963	757,393	31,607	3.59%
7-01-01	296	24,821	757,335	30,512	5.50%
7-01-00	297	24,782	716,749	28,922	4.82%
7-01-99	307	23,127	638,086	27,591	4.11%
7-01-98	301	22,883	606,426	26,501	2.83%

## Actuarial Section

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### General Assembly Retirement System Schedule of Active Member Valuation Data\* As of July 1, 2007

Valuation Date	Number of Employers	Number of Active Members*	Annual Payroll (in thousands)	Annual Average Pay	Percentage Increase In Average Pay
7-01-07	2	170	\$ 3,854	\$ 22,671	0.00%
7-01-06	2	170	3,854	22,671	0.00%
7-01-05	2	170	3,853	22,668	0.38%
7-01-04	2	170	3,839	22,582	(0.13%)
7-01-03	2	170	3,844	22,612	0.17%
7-01-02	2	200	4,515	22,573	(0.91%)
7-01-01	2	209	4,761	22,781	(0.12%)
7-01-00	2	213	4,858	22,808	0.31%
7-01-99	2	219	4,979	22,737	(0.26%)
7-01-98	2	211	4,810	22,797	0.00%

\*Beginning July 1, 2003, does not include special contributors.

### Judges and Solicitors Retirement System Schedule of Active Member Valuation Data As of July 1, 2007

Valuation Date	Number of Employers	Number of Active Members	Annual Payroll (in thousands)	Annual Average Pay	Percentage Increase In Average Pay
7-01-07	2	128	\$ 16,407	\$ 128,176	3.00%
7-01-06	2	128	15,929	124,445	3.00%
7-01-05	2	128	15,465	120,820	4.00%
7-01-04	2	128	14,870	116,172	3.00%
7-01-03	2	128	14,437	112,789	1.59%
7-01-02	2	128	14,211	111,026	0.73%
7-01-01	2	128	14,109	110,223	4.26%
7-01-00	2	125	13,214	105,715	4.49%
7-01-99	2	126	12,748	101,174	4.99%
7-01-98	2	120	11,564	96,363	3.05%

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## Actuarial Section

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### South Carolina Retirement System

#### The Number and Earnable Compensation of Active Members

As of July 1, 2007  
(Dollar amounts expressed in thousands)

<u>GROUP</u>	<u>NUMBER</u>	<u>ANNUAL COMPENSATION</u>
State Employees	53,971	\$ 2,235,667
Teachers	83,356	3,075,431
Other	50,641	1,782,083
Total	187,968	\$ 7,093,181

Note: In addition, there are 153,477 inactive members with contributions still in the system. The results of the valuation were adjusted to take these members into account.

### Police Officers Retirement System

#### The Number and Earnable Compensation of Active Members

As of July 1, 2007  
(Dollar amounts expressed in thousands)

<u>NUMBER</u>	<u>ANNUAL COMPENSATION</u>
25,645	\$ 992,849

Note: In addition, there are 11,038 inactive members with contributions still in the system. The results of the valuation were adjusted to take these members into account.

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## Actuarial Section

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**General Assembly Retirement System**  
**The Number and Earnable Compensation of Active Members**  
**As of July 1, 2007**  
*(Dollar amounts expressed in thousands)*

<u>NUMBER</u>	<u>ANNUAL COMPENSATION</u>
170	\$ 3,854

Note: There are 56 inactive members with contributions still in the system, and there are 27 special contributors. The results of the valuation were adjusted to take these members into account. Numbers shown above do not include open seats or members receiving retirement benefits while continuing in office.

**Judges and Solicitors Retirement System**  
**The Number and Earnable Compensation of Active Members**  
**As of July 1, 2007**  
*(Dollar amounts expressed in thousands)*

<u>NUMBER</u>	<u>ANNUAL COMPENSATION</u>
128	\$ 16,407

Note: There are seven inactive members with contributions still in the system. The results of the valuation were adjusted to take these members into account. Numbers above were not adjusted for open seats.



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## Actuarial Section

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### South Carolina Retirement System The Number and Annual Retirement Allowances of Retired Members and Beneficiaries\*

As of July 1, 2007  
(Dollar amounts expressed in thousands)

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
<b>Service Retirements:</b>		
Employees:		
Men	19,365	\$ 436,658
Women	22,552	354,218
Total	41,917	790,876
Teachers:		
Men	7,922	193,264
Women	32,909	613,625
Total	40,831	806,889
<b>Disability Retirements:</b>		
Employees:		
Men	2,987	37,467
Women	3,588	41,025
Total	6,575	78,492
Teachers:		
Men	863	11,871
Women	3,509	43,859
Total	4,372	55,730
<b>Beneficiaries:</b>		
Men	1,996	14,679
Women	5,206	59,754
Total	7,202	74,433
Grand Total	100,897	\$ 1,806,420

\*Includes Teacher and Employee Retention Incentive (TERI) participants.

## Actuarial Section

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### Police Officers Retirement System The Number and Annual Retirement Allowances of Retired Members and Beneficiaries

As of July 1, 2007

*(Dollar amounts expressed in thousands)*

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
<b>Service Retirements:</b>		
Men	6,776	\$ 132,876
Women	1,302	16,057
Total	8,078	148,933
<b>Disability Retirements:</b>		
Men	1,233	23,455
Women	369	5,056
Total	1,602	28,511
<b>Beneficiaries:</b>		
Men	35	308
Women	986	10,922
Total	1,021	11,230
Grand Total	10,701	\$ 188,674

### General Assembly Retirement System The Number and Annual Retirement Allowances of Retired Members and Beneficiaries

As of July 1, 2007

*(Dollar amounts expressed in thousands)*

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
<b>Service Retirements:</b>		
Men	230	\$ 4,414
Women	26	506
Total	256	4,920
<b>Disability Retirements:</b>		
Men	1	15
Women	0	0
Total	1	15
<b>Beneficiaries:</b>		
Men	0	0
Women	76	1,148
Total	76	1,148
Grand Total	333	\$ 6,083

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## Actuarial Section

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### Judges and Solicitors Retirement System The Number and Annual Retirement Allowances of Retired Members and Beneficiaries

As of July 1, 2007

*(Dollar amounts expressed in thousands)*

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
<b>Service Retirements:</b>		
Men	116	\$ 10,730
Women	3	300
Total	119	11,030
<b>Disability Retirements:</b>		
Men	1	92
Women	0	0
Total	1	92
<b>Beneficiaries:</b>		
Men	10	240
Women	45	1,349
Total	55	1,589
Grand Total	175	\$ 12,711

## Actuarial Section

### South Carolina Retirement System Schedule of Retirants Added to and Removed from Rolls\* (Dollar amounts except average allowance expressed in thousands)

Year Ended	Added to Rolls		Removed from Rolls		Rolls End of the Year		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
7-01-07	5,944	\$ 130,286	2,252	\$ 28,455	100,897	\$ 1,806,420	6.0%	\$ 17,904
7-01-06	4,621	118,271	2,083	24,099	97,205	1,704,589	5.8%	17,536
7-01-05	7,203	167,748	2,143	23,537	94,667	1,610,417	9.8%	17,011
7-01-04	7,319	151,477	2,132	22,656	89,607	1,466,206	9.6%	16,363
7-01-03	7,866	163,867	2,510	27,662	84,420	1,337,385	11.3%	15,842
7-01-02	7,344	140,077	2,334	24,531	79,064	1,201,180	10.6%	15,193
7-01-01	12,523	284,739	2,474	23,735	74,054	1,085,634	31.7%	14,660
7-01-00	4,772	93,459	1,830	17,139	64,005	824,630	10.2%	12,884
7-01-99	4,961	68,522	2,436	12,175	61,063	748,310	8.1%	12,255
7-01-98	4,580	61,751	2,169	13,592	58,538	691,963	7.5%	11,321

\*Includes Teacher and Employee Retention Incentive (TERI) participants.

### Police Officers Retirement System Schedule of Retirants Added to and Removed from Rolls (Dollar amounts except average allowance expressed in thousands)

Year Ended	Added to Rolls		Removed from Rolls		Rolls End of the Year		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
7-01-07	772	\$ 16,474	205	\$ 2,745	10,701	\$ 188,674	7.8%	\$ 17,631
7-01-06	678	16,880	205	2,691	10,134	174,945	8.8%	17,263
7-01-05	778	12,576	173	2,147	9,661	160,756	9.8%	16,640
7-01-04	894	16,256	265	2,923	9,056	146,348	10.8%	16,114
7-01-03	947	18,614	226	2,733	8,427	133,015	13.6%	15,784
7-01-02	956	17,378	220	2,639	7,706	117,134	14.4%	15,200
7-01-01	989	17,235	341	3,986	6,970	102,395	14.9%	14,691
7-01-00	549	9,979	152	1,581	6,322	89,146	10.4%	14,101
7-01-99	606	8,490	238	1,731	5,925	80,748	9.1%	13,628
7-01-98	492	6,924	154	1,085	5,557	73,989	8.6%	13,315

## Actuarial Section

### General Assembly Retirement System Schedule of Retirants Added to and Removed from Rolls (Dollar amounts except average allowance expressed in thousands)

Year Ended	Added to Rolls		Removed from Rolls		Rolls End of the Year		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
7-01-07	18	\$ 321	2	\$ 13	333	\$ 6,083	5.3%	\$ 18,267
7-01-06	13	238	8	179	317	5,775	1.0%	18,218
7-01-05	22	486	7	125	312	5,716	6.8%	18,321
7-01-04	12	185	9	119	297	5,353	1.2%	18,023
7-01-03	40	839	12	226	294	5,287	13.1%	17,983
7-01-02	24	453	9	160	266	4,674	6.7%	17,571
7-01-01	27	609	11	204	251	4,381	10.2%	17,454
7-01-00	8	118	7	110	235	3,976	0.2%	16,919
7-01-99	16	257	6	62	234	3,968	5.2%	16,957
7-01-98	9	125	6	159	224	3,773	(0.9%)	16,844

### Judges and Solicitors Retirement System Schedule of Retirants Added to and Removed from Rolls (Dollar amounts except average allowance expressed in thousands)

Year Ended	Added to Rolls		Removed from Rolls		Rolls End of the Year		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
7-01-07	32 <sup>1</sup>	\$ 2,690	1	\$ 30	175 <sup>1</sup>	\$ 12,711	26.5%	\$ 72,634
7-01-06	4	464	1	28	144	10,051	4.5%	69,799
7-01-05	3	581	1	27	141	9,615	6.1%	68,191
7-01-04	11	925	2	139	139	9,061	9.5%	65,190
7-01-03	11	716	7	493	130	8,275	2.8%	63,654
7-01-02	13	706	5	248	126	8,052	6.0%	63,905
7-01-01	9	685	6	442	118	7,594	3.3%	64,356
7-01-00	7	772	4	276	115	7,351	7.2%	63,926
7-01-99	9	598	3	209	112	6,855	6.0%	61,205
7-01-98	8	812	3	198	106	6,466	10.5%	60,996

<sup>1</sup>Includes 16 participants who have retired in place.

## Actuarial Section

### Summary of Accrued and Unfunded Accrued Liabilities (Dollar amounts expressed in thousands)

	Valuation Date	Valuation Assets	Actuarial Liability	Actuarial Assets as a % of Actuarial Accrued Liabilities	Unfunded Accrued Liabilities	Annual Active Member Payroll	UAL as a % of Active Member Payroll
SCRS	7-01-07	\$ 23,541,438	\$ 33,766,678	69.7%	\$10,225,240	\$ 7,093,181	144.2%
	7-01-06	22,293,446	32,018,519	69.6%	9,725,073	6,733,379	144.4%
	7-01-05	21,625,510	30,217,471	71.6%	8,591,961	6,356,489	135.2%
	7-01-04	20,862,659	25,977,852	80.3%	5,115,193	6,180,599	82.8%
	7-01-03	20,197,936	24,398,931	82.8%	4,200,995	6,240,768	67.3%
	7-01-02	19,298,174	22,446,574	86.0%	3,148,400	6,147,712	51.2%
	7-01-01	18,486,773	21,162,147	87.4%	2,675,374	6,017,537	44.5%
	7-01-00	17,286,108	19,414,972	89.0%	2,128,864	5,881,847	36.2%
	7-01-99	16,120,513	16,298,438	98.9%	177,925	5,473,759	3.3%
	7-01-98	14,946,070	15,952,345	93.7%	1,006,275	5,191,048	19.4%
	Valuation Date	Valuation Assets	Actuarial Liability	Actuarial Assets as a % of Actuarial Accrued Liabilities	Unfunded Accrued Liabilities	Annual Active Member Payroll	UAL as a % of Active Member Payroll
PORS	7-01-07	\$ 3,160,240	\$ 3,730,544	84.7%	\$ 570,304	\$ 992,849	57.4%
	7-01-06	2,935,841	3,466,281	84.7%	530,440	931,815	56.9%
	7-01-05	2,774,606	3,173,930	87.4%	399,324	850,610	46.9%
	7-01-04	2,616,835	2,984,584	87.7%	367,749	822,448	44.7%
	7-01-03	2,511,369	2,744,849	91.5%	233,480	800,394	29.2%
	7-01-02	2,351,100	2,527,876	93.0%	176,776	757,393	23.3%
	7-01-01	2,197,982	2,324,257	94.6%	126,275	757,335	16.7%
	7-01-00	2,008,554	2,095,991	95.8%	87,437	716,749	12.2%
	7-01-99	1,844,517	1,898,237	97.2%	53,720	638,086	8.4%
	7-01-98	1,684,641	1,733,578	97.2%	48,937	606,426	8.1%

Note: Effective 7-1-1999, actuarial assumptions were changed as a result of a 5 year experience study.

Effective for the 7-1-2000 valuation, eligibility for an unreduced retirement annuity under SCRS was reduced from 30 years of service to 28 years. The SCRS also adopted a deferred retirement option plan.

Effective 7-1-2003, actuarial assumptions were changed as a result of a 5 year experience study. The rates of salary increase assumption, the assumed retirement rates, disability incidence assumptions and withdrawal rate assumptions were revised for both SCRS and PORS. In addition, the assumed mortality rates for retired SCRS members were revised, along with the assumed mortality rates of active and disabled members for PORS.

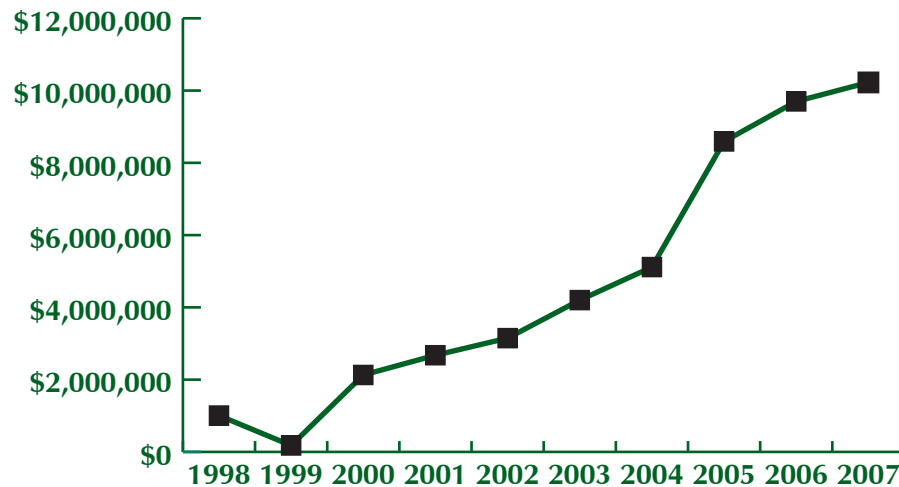
Effective 7-1-2005, actuarial assumptions were changed to include an increase in member contributions to 6.25 percent of earnings for fiscal year 2006 and 6.50 percent beginning fiscal year 2007; all return-to-work retirees and those TERI participants who joined the system after 7-01-2005 contributing at the same rate as active employees; a reduction in the interest rate credited to accumulated employee contributions from 6 percent to 4 percent; and the addition of a guaranteed COLA equal to the change in CPI, but not to exceed 1 percent, for SCRS retirees beginning the July 1st following a full year of annuity payments.

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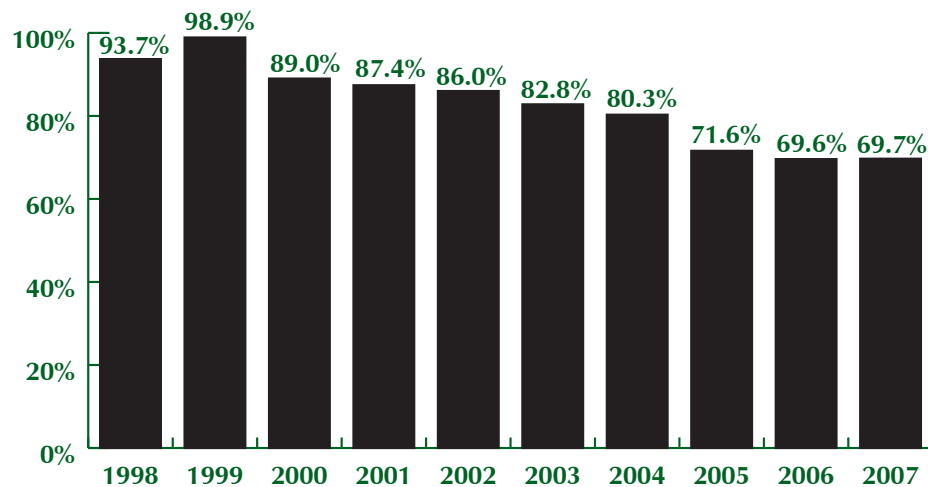
## Actuarial Section

### South Carolina Retirement System Funding Progress with Funded Ratios

**Unfunded Accrued Liabilities**  
*(Amounts expressed in thousands)*



**Funded Ratios**  
*(Actuarial assets as a percentage of actuarial accrued liabilities)*

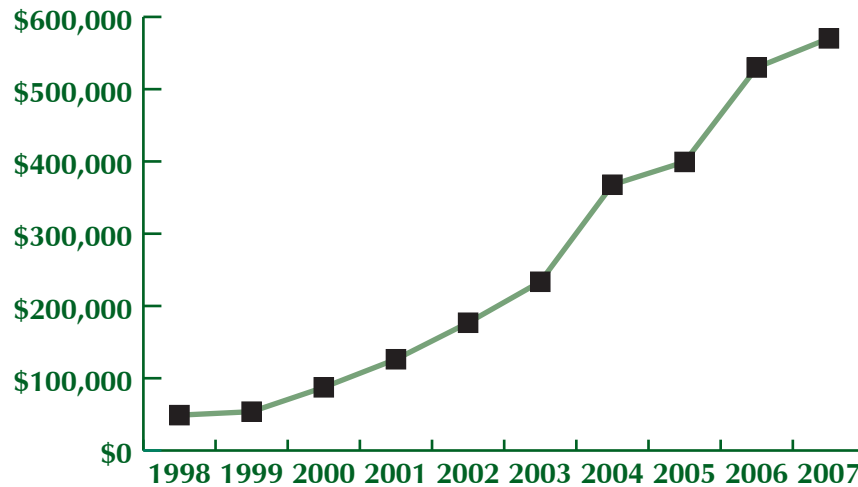


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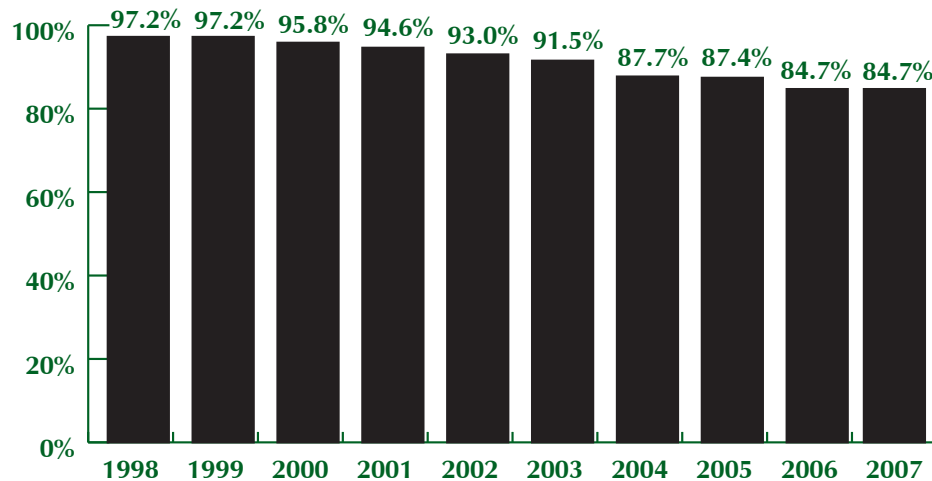
## Actuarial Section

### Police Officers Retirement System Funding Progress with Funded Ratios

**Unfunded Accrued Liabilities**  
*(Amounts expressed in thousands)*



**Funded Ratios**  
*(Actuarial assets as a percentage of actuarial accrued liabilities)*





## Actuarial Section

### Summary of Accrued and Unfunded Accrued Liabilities (Dollar amounts expressed in thousands)

GARS	Valuation Date	Valuation Assets	Actuarial Liability	Actuarial	Unfunded Accrued Liabilities	Annual Active Member Payroll	UAL as a % of Active Member Payroll
				Assets as a % of Actuarial Accrued Liabilities			
	7-01-07	\$ 46,925	\$ 71,014	66.1%	\$ 24,089	\$ 3,854	625.0%
	7-01-06	46,075	69,734	66.1%	23,659	3,854	613.9%
	7-01-05	46,316	69,161	67.0%	22,845	3,853	592.9%
	7-01-04	45,087	68,332	66.0%	23,245	3,839	605.5%
	7-01-03	44,682	66,619	67.1%	21,937	3,844	570.8%
	7-01-02	43,841	73,046	60.0%	29,205	4,515	646.9%
	7-01-01	42,788	68,291	62.7%	25,503	4,761	535.6%
	7-01-00	40,730	63,947	63.7%	23,217	4,858	477.9%
	7-01-99	38,685	63,501	60.9%	24,816	4,979	498.4%
	7-01-98	36,260	60,330	60.1%	24,070	4,810	500.4%

JSRS	Valuation Date	Valuation Assets	Actuarial Liability	Actuarial	Unfunded Accrued Liabilities	Annual Active Member Payroll	UAL as a % of Active Member Payroll
				Assets as a % of Actuarial Accrued Liabilities			
	7-01-07	\$ 132,990	\$ 229,388	58.0%	\$ 96,398	\$ 16,407	587.5%
	7-01-06	124,837	211,384	59.1%	86,547	15,929	543.3%
	7-01-05	118,888	204,847	58.0%	85,959	15,465	555.8%
	7-01-04	112,016	185,052	60.5%	73,036	14,870	491.2%
	7-01-03	106,114	166,655	63.7%	60,541	14,437	419.3%
	7-01-02	100,074	166,440	60.1%	66,366	14,211	467.0%
	7-01-01	94,795	159,246	59.5%	64,451	14,109	456.8%
	7-01-00	87,536	144,631	60.5%	57,095	13,214	432.1%
	7-01-99	81,780	134,272	60.9%	52,492	12,748	411.8%
	7-01-98	75,699	124,756	60.7%	49,057	11,564	424.2%

Note: The 7-1-2002, GARS valuation reflected the change in legislation effective January 1, 2003, which allows a member who has attained the age of 70 or has 30 years of service to retire and draw an annuity while continuing to serve in the General Assembly.

Effective 7-1-2003, actuarial assumptions for GARS and JSRS were changed as a result of a 5 year experience study. The rates of salary increase assumption, the assumed retirement rates, and disability incidence assumptions were revised.

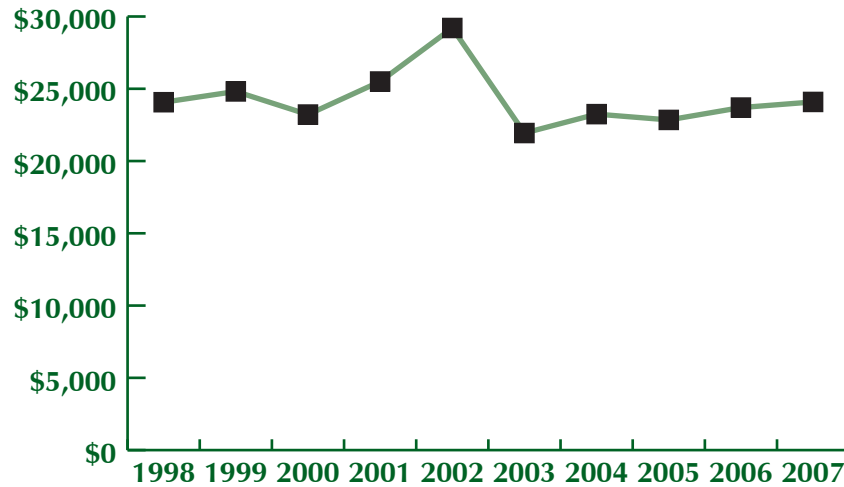
Effective 7-1-2005, actuarial assumptions were changed to include updated normal retirement rates based on analysis of historical normal retirement experience.

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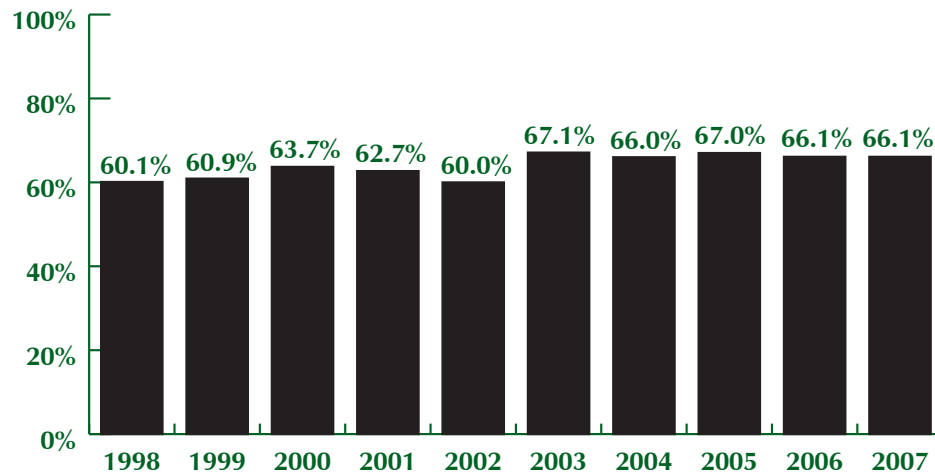
## Actuarial Section

### General Assembly Retirement System Funding Progress with Funded Ratios

**Unfunded Accrued Liabilities**  
*(Amounts expressed in thousands)*



**Funded Ratios**  
*(Actuarial assets as a percentage of actuarial accrued liabilities)*

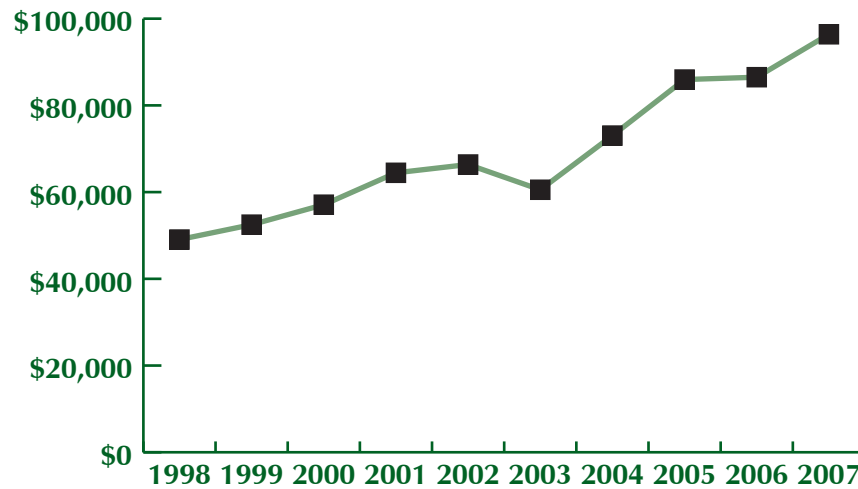


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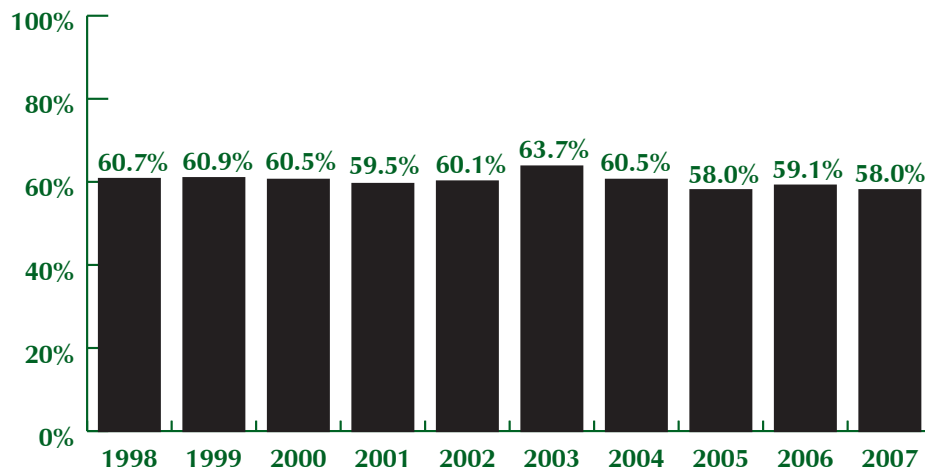
## Actuarial Section

### Judges and Solicitors Retirement System Funding Progress with Funded Ratios

**Unfunded Accrued Liabilities**  
*(Amounts expressed in thousands)*



**Funded Ratios**  
*(Actuarial assets as a percentage of actuarial accrued liabilities)*



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## Actuarial Section

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### South Carolina Retirement System

#### Analysis of the Increase in the Unfunded Accrued Liability

As of July 1, 2007  
(Amounts expressed in millions)

Item:	Amount of Increase (Decrease)
Beginning of Year Unfunded Actuarial Liability	\$ 9,725
Interest on Unfunded Actuarial Liability	705
Amortization Payment	(415)
Asset Experience	(296)
Salary Experience	77
Other Liability Experience	210
COLA (ad hoc)	267
Benefit Changes	-
Assumption/Method Changes	(48)
Total Increase/(Decrease)	\$ 500
End of Year Unfunded Actuarial Liability	<u>\$ 10,225</u>

### Police Officers Retirement System

#### Analysis of the Increase in the Unfunded Accrued Liability

As of July 1, 2007  
(Amounts expressed in millions)

Item:	Amount of Increase (Decrease)
Beginning of Year Unfunded Actuarial Liability	\$ 530.4
Interest on Unfunded Actuarial Liability	38.5
Amortization Payment	(42.6)
Asset Experience	(29.7)
Salary Experience	0.7
Other Liability Experience	30.1
COLA	42.9
Benefit Changes	-
Assumption/Method Changes	-
Total Increase/(Decrease)	\$ 39.9
End of Year Unfunded Actuarial Liability	<u>\$ 570.3</u>

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## Actuarial Section

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### General Assembly Retirement System Analysis of the Increase in the Unfunded Accrued Liability As of July 1, 2007 (Amounts expressed in millions)

Item:	Amount of Increase (Decrease)
Beginning of Year Unfunded Actuarial Liability	\$ 23,659
Interest on Unfunded Actuarial Liability	1,715
Required Amortization Payment	(2,174)
Asset Experience	(669)
Salary Experience	-
Other Liability Experience	1,558
Benefit Changes	-
Assumption/Method Changes	-
Total Increase/(Decrease)	\$ 430
End of Year Unfunded Actuarial Liability	\$ 24,089

### Judges and Solicitors Retirement System Analysis of the Increase in the Unfunded Accrued Liability As of July 1, 2007 (Amounts expressed in millions)

Item:	Amount of Increase (Decrease)
Beginning of Year Unfunded Actuarial Liability	\$ 86.5
Interest on Unfunded Actuarial Liability	6.3
Amortization Payment	(4.5)
Asset Experience	(1.4)
Salary Experience	(0.2)
Other Liability Experience	2.3
COLA	(0.4)
Benefit Changes	3.8
Assumption/Method Changes	4.0
Total Increase/(Decrease)	\$ 9.9
End of Year Unfunded Actuarial Liability	\$ 96.4

## Actuarial Section

### Solvency Test (Dollar amounts expressed in thousands)

	Valuation Date	(1) Active Member Contributions	(2) Retirants & Beneficiaries	(3) Active Members (Employer Funded Portion)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets		
						(1)	(2)	(3)
<b>SCRS</b>	7-01-07	\$ 5,464,756	\$ 19,084,672	\$ 9,217,250	\$ 23,541,438	100%	94.7%	0.0%
	7-01-06	5,229,175	17,800,254	8,989,090	22,293,446	100%	95.9%	0.0%
	7-01-05	4,915,423	16,891,954	8,410,094	21,625,510	100%	98.9%	0.0%
	7-01-04	4,750,077	14,184,765	7,043,010	20,862,659	100%	100%	27.4%
	7-01-03	4,627,360	13,240,368	6,531,203	20,197,936	100%	100%	35.7%
	7-01-02	4,512,402	11,600,395	6,333,777	19,298,174	100%	100%	50.3%
	7-01-01	4,339,747	10,367,913	6,454,487	18,486,773	100%	100%	58.6%
	7-01-00	4,563,513	7,484,050	7,367,149	17,286,108	100%	100%	71.1%
	7-01-99	4,278,861	6,944,021	5,075,556	16,120,513	100%	100%	96.5%
	7-01-98	3,972,263	6,305,903	5,674,179	14,946,070	100%	100%	82.3%
<b>PORS</b>	7-01-07	\$ 658,023	\$ 1,818,914	\$ 1,253,607	\$ 3,160,240	100%	100%	54.5%
	7-01-06	622,008	1,668,449	1,175,824	2,935,841	100%	100%	54.9%
	7-01-05	585,701	1,530,199	1,058,030	2,774,606	100%	100%	62.0%
	7-01-04	548,699	1,415,627	1,020,258	2,616,835	100%	100%	64.0%
	7-01-03	516,313	1,265,173	963,363	2,511,369	100%	100%	75.8%
	7-01-02	492,178	1,136,998	898,700	2,351,100	100%	100%	80.3%
	7-01-01	464,217	977,769	882,271	2,197,982	100%	100%	85.7%
	7-01-00	427,449	844,631	823,911	2,008,554	100%	100%	89.4%
	7-01-99	389,456	783,042	725,739	1,844,517	100%	100%	92.6%
	7-01-98	352,424	702,155	678,999	1,684,641	100%	100%	92.8%

Note: Effective 7-1-1999, actuarial assumptions were changed as a result of a 5 year experience study.

Effective for the 7-1-2000 valuation, eligibility for an unreduced retirement annuity under SCRS was reduced from 30 years of service to 28 years. The SCRS also adopted a deferred retirement option plan.

Effective 7-1-2003, actuarial assumptions were changed as a result of a 5 year experience study. The rates of salary increase assumption, the assumed retirement rates, disability incidence assumptions and withdrawal rate assumptions were revised for both SCRS and PORS. In addition, the assumed mortality rates for retired SCRS members were revised, along with the assumed mortality rates of active and disabled members for PORS.

Effective 7-1-2005, actuarial assumptions were changed to include an increase in member contributions to 6.25 percent of earnings for fiscal year 2006 and 6.50 percent beginning fiscal year 2007; all return-to-work retirees and those TERI participants who joined the system after 7-01-2005 contributing at the same rate as active employees; a reduction in the interest rate credited to accumulated employee contributions from 6 percent to 4 percent; and the addition of a guaranteed COLA equal to the change in CPI, but not to exceed 1 percent, for SCRS retirees beginning the July 1st following a full year of annuity payments.

## Actuarial Section

### Solvency Test (Dollar amounts expressed in thousands)

	Valuation Date	(1) Active Member Contributions	(2) Retirants & Beneficiaries	(3) Active Members (Employer Funded Portion)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets		
						(1)	(2)	(3)
<b>GARS</b>	7-01-07	\$ 7,735	\$ 54,115	\$ 9,164	\$ 46,925	100%	72.4%	0.0%
	7-01-06	8,094	51,870	9,770	46,075	100%	73.2%	0.0%
	7-01-05	8,024	51,353	9,784	46,316	100%	74.6%	0.0%
	7-01-04	8,485	48,126	11,721	45,087	100%	76.1%	0.0%
	7-01-03	8,324	46,781	11,515	44,682	100%	77.7%	0.0%
	7-01-02	9,470	47,485	16,091	43,841	100%	72.4%	0.0%
	7-01-01	9,329	45,013	13,949	42,788	100%	74.3%	0.0%
	7-01-00	9,220	39,409	15,318	40,730	100%	80.0%	0.0%
	7-01-99	8,459	40,298	14,744	38,685	100%	75.0%	0.0%
	7-01-98	7,898	38,282	14,150	36,260	100%	74.1%	0.0%
<b>JSRS</b>	7-01-07	\$ 18,999	\$ 149,435	\$ 60,954	\$ 132,990	100%	76.3%	0.0%
	7-01-06	21,857	112,823	76,704	124,837	100%	91.3%	0.0%
	7-01-05	20,005	110,876	73,966	118,888	100%	89.2%	0.0%
	7-01-04	17,640	106,159	61,253	112,016	100%	88.9%	0.0%
	7-01-03	16,545	96,409	53,701	106,114	100%	92.9%	0.0%
	7-01-02	16,162	101,716	48,562	100,074	100%	82.5%	0.0%
	7-01-01	15,254	97,512	46,480	94,795	100%	81.6%	0.0%
	7-01-00	12,979	94,633	37,019	87,536	100%	78.8%	0.0%
	7-01-99	12,286	87,464	34,522	81,780	100%	79.5%	0.0%
	7-01-98	11,424	81,193	32,139	75,699	100%	79.2%	0.0%

Note: The 7-1-2002, GARS valuation reflected the change in legislation effective January 1, 2003, which allows a member who has attained the age of 70 or has 30 years of service to retire and draw an annuity while continuing to serve in the General Assembly.

Effective 7-1-2003, actuarial assumptions for GARS and JSRS were changed as a result of a 5 year experience study. The rates of salary increase assumption, the assumed retirement rates, and disability incidence assumptions were revised.

Effective 7-1-2005, actuarial assumptions were changed to include updated normal retirement rates based on analysis of historical normal retirement experience.





Cavanaugh Macdonald  
CONSULTING, LLC  
*The experience and dedication you deserve*

February 14, 2008

State Budget and Control Board  
South Carolina Retirement Systems  
Columbia, South Carolina 29211

Re: Certification and Statement Regarding the Actuarial Valuation of the South Carolina National Guard Retirement System as of July 1, 2007

Dear Members of the Board:

#### **Applicable Laws**

The law governing the operation of the South Carolina National Guard Retirement System provides that actuarial valuation of the assets and liabilities of the System shall be made at least every other year. We have prepared the annual actuarial valuation of the Retirement System as of July 1, 2007.

#### **Funding Objective**

A funding objective of the System is that the contributions will remain relatively level over time. As these contributions are set by the Board, the valuation is used to determine the sufficiency of the contributions to maintain or improve the measures of the System's funding progress (i.e. *funded ratio*, *funding period*) and provide for the complete funding of all actuarial liabilities over a period of approximately 26 years.

#### **Funding Methodology**

The entry age normal actuarial cost method determines the System's normal cost, the cost of the current year's benefit accrual. Additionally, the method determines the actuarial liability, the value of benefits already earned by active and retired members due to past service. A smoothing technique is utilized to produce a market-related actuarial value of assets with the goal of dampening the impact of investment return volatility. The *funded ratio* is the actuarial value of assets as a percentage of the actuarial liability.

An unfunded actuarial liability exists to the extent the System's actuarial liability exceeds its actuarial value of assets. The contribution amount in excess of the System's normal cost is the level dollar amount available to amortize an unfunded actuarial liability. The System's *funding period* is the resulting number of years necessary to fully amortize the unfunded actuarial liability with the available contributions.

#### **Assumptions**

Actuarial assumptions are necessary to estimate the future economic and demographic experience of the System. The actuarial assumptions used in the valuation are internally consistent and reasonably based on the actual experience of the System.

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State Budget and Control Board  
South Carolina Retirement Systems  
February 14, 2008  
Page 2

The current actuarial assumptions are in accordance with the applicable Actuarial Standards of Practice, as well as the parameters set forth in the Governmental Accounting Standards Board (GASB) Statement No. 25, *Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans*.

The results and conclusions of this report are based on the valuation as of July 1, 2007. Differences between our projections and actual amounts depend on the extent to which future experience conforms exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

### **Data Reliance**

In preparing the valuations, we, as the actuary, relied on data provided by the System. In fulfillment of the scope of our assignment, we performed a limited review of the data for consistency and reasonableness and did not find material defects in the census data.

### **Supporting Schedules**

Our firm, as actuary, is responsible for the actuarial trend data in the financial section of the report and the supporting schedules in the actuarial section, beginning with the information for the July 1, 2004 to June 30, 2005 period. Information for previous years was supplied by other actuarial firms employed by the System at that time.

### **Certification**

Based on the results of the July 1, 2007 valuation, we believe that the valuation is appropriately reflecting the System's long term obligations and the current contribution levels are sufficient to fund the liabilities over a reasonable time frame, and based on these criteria may be deemed actuarially sound.

I, Edward A. Macdonald, President of Cavanaugh Macdonald Consulting, LLC, am a Member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. On the basis of the foregoing, I certify that, to the best of my knowledge this report is complete and accurate and has been prepared in accordance with South Carolina's statutes and generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'E. Macdonald'.

Edward A. Macdonald, ASA, FCA, MAAA  
President

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## Actuarial Section

### National Guard Retirement System Valuation Balance Sheet As of Actuarial Valuation at July 1, 2007 (Amounts expressed in thousands)

	<u>July 1, 2007</u>
<b>1. <u>Assets</u></b>	
a. Current Assets (Actuarial Value)	\$ 15,937
b. Present Value of Future Member Contributions	\$ -
c. Present Value of Future Employer Contributions	
i) Normal Contributions	\$ 4,985
ii) Accrued Liability Contributions	<u>39,980</u>
iii) Total Future Employer Contributions	\$ <u>44,965</u>
d. Total Assets	<u>\$ 60,902</u>
<b>2. <u>Liabilities</u></b>	
a. Benefits to be Paid to Retired Members and Beneficiaries	\$ 24,627
b. Benefits to be Paid to Former Members Entitled to Deferred Pensions	\$ 15,789
c. Benefits to be Paid to Current Active Members	<u>\$ 20,486</u>
d. Total Liabilities	<u>\$ 60,902</u>

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## Actuarial Section

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### National Guard Retirement System Results of the Valuation as of July 1, 2007 (Dollar amounts expressed in thousands)

		<u>July 1, 2007</u>
<b>1. <u>Actuarial Present Value of Future Benefits</u></b>		
a. Present Retired Members and Beneficiaries	\$	24,627
b. Former Members Entitled to Deferred Pensions		15,789
b. Present Active Members		<u>20,486</u>
c. Total Actuarial Present Value	\$	60,902
 <b>2. <u>Present Value of Future Normal Contributions</u></b>		
a. Employees	\$	-
b. Employer		<u>4,985</u>
c. Total Future Normal Contributions	\$	4,985
 <b>3. <u>Actuarial Liability</u></b>	\$	55,917
 <b>4. <u>Current Actuarial Value of Assets</u></b>	\$	15,937
 <b>5. <u>Unfunded Actuarial Liability</u></b>	\$	39,980
 <b>6. <u>Unfunded Actuarial Liability Annual Payment Amount</u></b>	\$	3,499
 <b>7. <u>Unfunded Actuarial Liability Liquidation Period</u></b>		26 years

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## Actuarial Section

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### National Guard Retirement System Summary of Actuarial Assumptions and Methods

1. **Investment Return to be Earned by Fund**

7.25% per annum net of investment and administrative expenses, compounded annually.

2. **Separations from Active Service**

Representative values of the assumed annual rates of separation from active service are as follows:

Annual Rates of				
Retirement				
Age	Under Age 60 with 20 Years of Service	Age 60 with 20 Years of Service or 30 Years of Service	Death	Disability <sup>1</sup>
25			.0005	.0009
30			.0006	.0011
35			.0009	.0015
40	.100		.0012	.0022
45	.100		.0022	.0036
50	.100		.0039	.0061
55	.100	1.000	.0061	.0101
60		1.000	.0092	.0163

<sup>1</sup>Applied only to members with less than 20 years of service.

No rates of withdrawals are assumed.

3. **Mortality After Retirement**

The 1983 Group Annuity Mortality Table rates for males is used.

4. **Marriage Assumption**

Not applicable because no death benefits are payable.

5. **Asset Valuation Method**

The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected value of assets, based on the assumed valuation rate of return. The amount recognized in addition to the expected return each year is 20 percent of the difference between the market value and expected actuarial value.

6. **Cost Methods**

Projected benefit method with entry age normal cost and open-end accrued liability. Gains and losses are reflected in the unfunded accrued liability.

7. **Administrative and Investment Expenses**

The investment return assumption represents the expected return net of all administrative and investment expenses.

## Actuarial Section

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### 8. Changes from Prior Valuation

There have been no changes since the prior valuation.

### 9. Adoption Date

Cavanaugh Macdonald Consulting, LLC, is the consulting actuary responsible for the actuarial trend data in the financial section of the report and the supporting schedules in the actuarial section. The exact adoption date for the current actuarial assumptions and methods is unknown. The discount rate and retirement rates were last changed for the 1996 valuation. The death, disability, and mortality rates were changed in 1990 by the prior actuary.

### **National Guard Retirement System** **Development of Actuarial Value of Assets** *(Amounts expressed in thousands)*

Item	Valuation as of July 1, 2007
1. Excess (Shortfall) of Investment Income for Current Year and Previous Three Years:	
a. Current Year	\$ 947
b. Current Year - 1	(906)
c. Current Year - 2	(363)
d. Current Year - 3	(565)
2. Deferral of Excess (Shortfall) of Investment Income for:	
a. Current Year (80% Deferral)	\$ 758
b. Current Year - 1 (60% Deferral)	(544)
c. Current Year - 2 (40% Deferral)	(145)
d. Current Year - 3 (20% Deferral)	(113)
e. Total Deferred for Year	(44)
3. Market Value of Plan Assets, End of Year	\$ 15,893
4. Preliminary Actuarial Value of Plan Assets, End of Year (Item 3 - Item 2.e.)	\$ 15,937
5. Actuarial Value of Assets Corridor	
a. 80% of Market Value of Assets, End of Year	\$ 12,714
b. 120% of Market Value of Assets, End of Year	\$ 19,072
6. Final Actuarial Value of Plan Assets, End of Year (Item 4., But Not Less Than Item 5.a., or Greater Than Item 5.b.)	\$ 15,937

## Actuarial Section

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### National Guard Retirement System Schedule of Active Member Valuation Data As of July 1, 2007

Valuation Date	Number of Employers	Number of Active Members	Annual Payroll (in thousands)	Annual Average Pay	Percentage Increase In Average Pay
7-01-07	1	11,076	N/A	N/A	N/A
7-01-06	1	2,502	N/A	N/A	N/A
6-30-05	1	2,864	N/A	N/A	N/A
6-30-04	1	3,425	N/A	N/A	N/A
6-30-02	1	4,010	N/A	N/A	N/A
6-30-00	1	5,289	N/A	N/A	N/A
6-30-98	1	9,604	N/A	N/A	N/A
6-30-96	1	11,198	N/A	N/A	N/A

### National Guard Retirement System The Number and Annual Retirement Allowances of Retired Members As of July 1, 2007 *(Dollar amounts expressed in thousands)*

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES
<b>Service Retirements:</b>		
Men	3,187	\$ 3,012
Women	17	16
Total	3,204	3,028
<b>Disability Retirements:</b>		
Men	N/A	N/A
Women	N/A	N/A
Total	N/A	N/A
<b>Beneficiaries:</b>		
Men	N/A	N/A
Women	N/A	N/A
Total	N/A	N/A
Grand Total	3,204	\$ 3,028

## Actuarial Section

### National Guard Retirement System Schedule of Retirants Added to and Removed from Rolls (Dollar amounts except average allowance expressed in thousands)

Year Ended	Added to Rolls*		Removed from Rolls*		Rolls End of the Year		% Increase in Annual Allowances	Average Annual Allowances
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
7-01-07	362	\$ 329	61	\$ 58	3,204	\$ 3,028	9.8%	\$ 945
7-01-06	303	276	90	91	2,903	2,757	7.2%	950
6-30-05	244	214	89	81	2,690	2,572	5.5%	956
6-30-04	-	-	-	-	2,535	2,439	12.9%	962
6-30-02	-	-	-	-	2,213	2,160	10.9%	976
6-30-00	-	-	-	-	1,962	1,947	7.7%	992
6-30-98	-	-	-	-	1,801	1,808	13.6%	1,004
6-30-96	-	-	-	-	1,550	1,591	18.9%	1,026

\*Sufficient data is not available to complete these columns for years ending before June 30, 2005.

### Summary of Accrued and Unfunded Accrued Liabilities (Dollar amounts expressed in thousands)

NGRS	Valuation Date	Valuation Assets	Aggregate Accrued Liabilities	Actuarial Assets as a % of Actuarial Accrued Liabilities	Unfunded Accrued Liabilities	Annual Active Member Payroll	UAL as a % of Active Member Payroll
	7-01-07	\$ 15,937	\$ 55,917	28.5%	\$ 39,980	N/A	N/A
	7-01-06	14,046	48,755	28.8%	34,709	N/A	N/A
	6-30-05	12,151	46,985	25.9%	34,835	N/A	N/A
	6-30-04	13,567	47,281	28.7%	33,714	N/A	N/A
	6-30-02	12,608	44,678	28.2%	32,069	N/A	N/A
	6-30-00*	11,089	43,427	25.5%	32,338	N/A	N/A
	6-30-98	8,640	41,478	20.8%	32,839	N/A	N/A
	6-30-96	6,259	36,756	17.0%	30,497	N/A	N/A

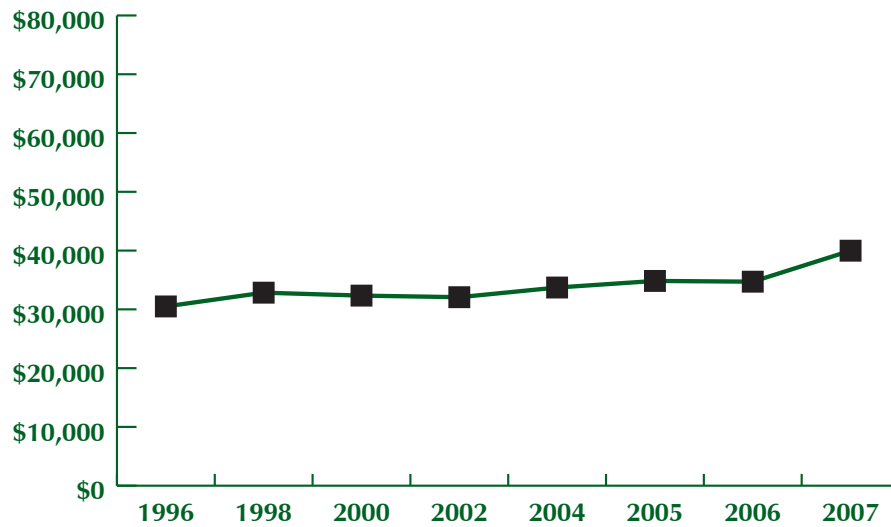
\*As of April 30, 2000.

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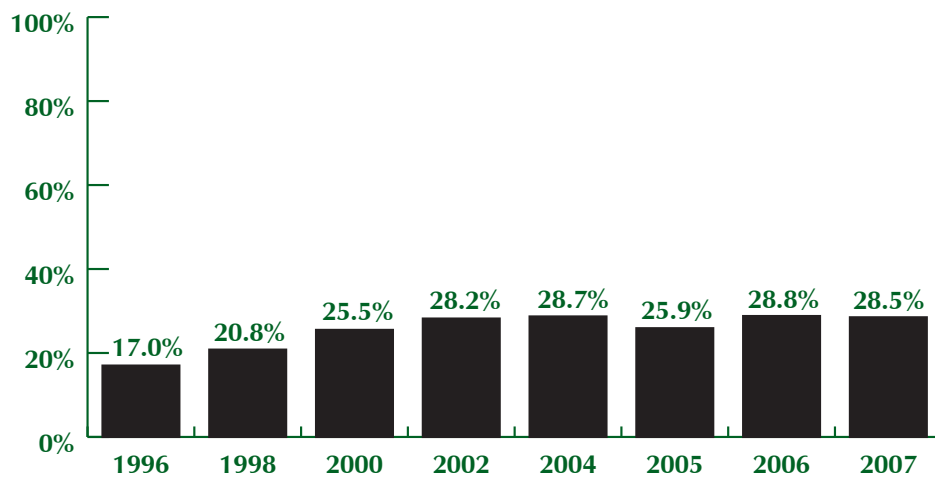
## Actuarial Section

### National Guard Retirement System Funding Progress with Funded Ratios

#### Unfunded Accrued Liabilities (Amounts expressed in thousands)



#### Funded Ratios (Actuarial assets as a percentage of actuarial accrued liabilities)





## Actuarial Section

### National Guard Retirement System Analysis of the Increase in the Unfunded Accrued Liability As of July 1, 2007 (Amounts expressed in thousands)

Item:	Amount of Increase (Decrease)
Beginning of Year Unfunded Actuarial Liability	\$ 34,709
Interest on Unfunded Actuarial Liability	2,516
Amortization Payment	(3,454)
Asset Experience	177
Salary Experience	-
Other Liability Experience	1,069
COLA	-
Benefit Changes	4,963
Assumption/Method Changes	-
Total Increase/(Decrease)	\$ 5,271
End of Year Unfunded Actuarial Liability	<u>\$ 39,980</u>

### Solvency Test (Dollar amounts expressed in thousands)

		(1) Active Member Contributions	(2) Retirants	(3) Active Members (Employer Funded)	Valuation Assets	Portion of Aggregate Accrued Liabilities Covered by Assets		
	Valuation Date					(1)	(2)	(3)
NGRS	7-01-07	\$ -	\$ 24,627	\$ 31,290	\$ 15,937	N/A	64.7%	0.0%
	7-01-06	-	22,366	26,389	14,046	N/A	62.8%	0.0%
	6-30-05	-	20,804	26,181	12,151	N/A	58.4%	0.0%
	6-30-04	-	19,704	27,577	13,567	N/A	68.9%	0.0%
	6-30-02	-	17,597	27,081	12,608	N/A	71.6%	0.0%
	6-30-00	-	16,186	27,241	11,089	N/A	68.5%	0.0%
	6-30-98	-	14,651	26,827	8,640	N/A	59.0%	0.0%
	6-30-96	-	13,138	23,618	6,259	N/A	47.6%	0.0%

# Actuarial Section

## Summary of Basic Provisions

SCRS	PORS	GARS	JSRS	NGRS
<b>1. Membership</b>				
All permanent, full-time and part-time employees of covered employers must join unless specifically exempted by statute or are eligible and elect to participate in the State ORP.	To be eligible for PORS membership, an employee must be required by the terms of his employment, by election or appointment, to preserve public order, protect life and property, and detect crimes in the state; to prevent and control property destruction by fire; be a coroner or deputy coroner in a full-time permanent position; or be a peace officer employed by the Department of Corrections, the Department of Juvenile Justice, or the Department of Mental Health. Probate judges and coroners may elect membership in PORS. Magistrates are required to participate in PORS for service as a magistrate. PORS members, other than magistrates and probate judges, must also earn at least \$2,000 per year and devote at least 1,600 hours per year to this work, unless exempted by statute.	Generally, all persons are required to participate upon taking office as member of the General Assembly unless exempted by statute.	All solicitors, circuit public defenders, judges of a Circuit or Family Court, and justices of the Court of Appeals and Supreme Court are required to participate upon taking office unless exempted by statute.	Individuals serving in the South Carolina National Guard.
<b>2. Employee Contributions</b>				
<b>Class I</b> 5% of earnable compensation	<b>Class I</b> \$21 per month	10% of earnable compensation	10% of earnable compensation	Not applicable as this is a non-contributory plan
<b>Class II</b> 6.5% of earnable compensation	<b>Class II</b> 6.5% of earnable compensation			
<b>3. Employer Contributions</b>				
<b>Class I</b> 4.25% of earnable compensation	<b>Class I</b> 7.8% of earnable compensation	Annual lump-sum appropriation	44.64% of earnable compensation	Annual lump-sum appropriation
<b>Class II</b> 9.06% of earnable compensation	<b>Class II</b> 10.3% of earnable compensation			
<b>Group Life Insurance</b> 0.15% of earnable compensation	<b>Group Life Insurance</b> 0.2% of earnable compensation	<b>Group Life Insurance</b> Included within annual lump-sum appropriation	<b>Group Life Insurance</b> 0.45% of earnable compensation	<b>Group Life Insurance</b> Not applicable
<b>Accidental Death Program</b> Not applicable	<b>Accidental Death Program</b> 0.2% of earnable compensation	<b>Accidental Death Program</b> Not applicable	<b>Accidental Death Program</b> Not applicable	<b>Accidental Death Program</b> Not applicable

## Actuarial Section

SCRS	PORS	GARS	JSRS	NGRS
<b>4. Requirements for Service Annuity</b>				
5 years earned service	5 years earned service	8 years service	10 years earned service in position of judge; 8 years earned service in position of solicitor or circuit public defender.	20 years total creditable military service, at least 15 of which must have been served in the South Carolina National Guard. Additionally, the last 10 years of service must have been served in the South Carolina National Guard.
The member is entitled to a deferred reduced annuity at age 60.	The member is entitled to a deferred annuity at age 55.	The member is entitled to a deferred annuity at age 60.	For members who joined prior to 7/1/2004, member is eligible for a deferred annuity at age 55 with 12 years in position. For members who joined after 6/30/2004, member is eligible for a deferred annuity at age 65.	
<b>5. Normal Retirement Age</b>				
Age 65	Age 55	Age 60	Varies depending on service	Age 60
<b>6. Requirements for Full Service Retirement</b>				
Age 65 or 28 years of credited service	Age 55 with 5 years of service or 25 years of credited service	Age 60 or 30 years of service	Age 70 with 15 years of service	Age 60 provided the member was honorably discharged from active duty with at least 20 years of total creditable military service. Of that 20 years of service, 15 years, and the final 10 years, must have been served in the South Carolina National Guard.
The member must have a minimum of five years of earned service to qualify for retirement.	The member must have a minimum of five years of earned service to qualify for retirement.	Age 70 or 30 years of service while continuing to serve in the General Assembly	Age 65 with 20 years of service	
			25 years of service as judge regardless of age	
			24 years of service as solicitor or circuit public defender regardless of age	
			Age 65 with 4 years earned service as judge or solicitor and at least 25 years other service with the state if a member as of 6/30/2004.	
<b>7. Early Retirement</b>				
Age 60 with 5% reduction for each year of age under age 65	Age 55 with five years of service credit	Age 60 with 8 years of service credit	Age 55 with 10 years of service in the position of a judge or 8 years of service in the position of a solicitor or circuit public defender for members who joined the system prior to 7/1/2004. For members who joined after 6/30/2004, the age requirement is 65.	Not applicable
Age 55 with 25 years service, reduced 4% for each year of service under 28	The member must have a minimum of five years of earned service to qualify for early retirement.			
The member must have a minimum of five years of earned service to qualify for early retirement.				
<b>8. Formula for Normal Service Retirement</b>				
<b>Class I</b> 1.45% of Average Final Compensation times years of credited service	<b>Class I</b> \$10.97 per month for each year of service	4.82% of earnable compensation times years of credited service	Annual allowance of 71.3% of the current active salary of the member's position.	For 20 years of service, retirees receive a \$50 monthly benefit. For each year of service
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# Actuarial Section

## SCRS

## PORS

## GARS

## JSRS

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### 8. Formula for Normal Service Retirement (continued)

#### Class II

1.82% of Average Final Compensation times years of credited service

#### Class II

2.14% of Average Final Compensation times years of credited service

Benefit formula increases by 2.67% for each year of active service over 25 years for judges or over 24 years for solicitors or circuit public defenders. The monthly retirement allowance may not exceed 90% of the current active salary for the member's position. Upon retirement, a member will receive an additional benefit equal to employee contributions and accumulated interest remitted after reaching the maximum 90% benefit.

beyond the 20 years, up to 30 years of service, the retiree receives an additional \$5. The maximum monthly benefit a retiree can receive is \$100.

### 9. Requirements for Disability Retirement

5 years of earned service unless injury is job related

5 years of earned service unless injury is job related

5 years of credited service

5 years of credited service

Not applicable

### 10. Formula for Disability Retirement

The disability retirement benefit based on a projection of service credit to age 65 with an actuarial reduction.

The disability retirement benefit is based on a projection of service credit to age 55.

The disability retirement benefit is based on the greater of the following options:

- Service benefit based upon actual credited service or
- 50% of service benefit based on projection of service to earlier of age 60 or 35 years service.

The disability retirement benefit is based on the service retirement formula.

Not applicable

### 11. Benefit Options

#### Option A

(Maximum/Retiree Only)  
Formula benefit as calculated in item 8. Non-recovered contributions paid upon death.

#### Option A

(Maximum/Retiree Only)  
Formula benefit as calculated in item 8. Non-recovered contributions paid upon death.

#### Maximum Benefit (Retiree Only)

Formula benefit as calculated in item 8. Non-recovered contributions paid upon death.

#### Maximum Benefit (Retiree/One-Third Spouse)

Formula as calculated in item 8. Continued annuity of one-third of member's benefit to a spouse beneficiary upon death of retiree or return of contributions to a designated non-spouse beneficiary.

Formula benefit as calculated in item 8.

#### Option B

(100% - 100% Joint Retiree/Survivor)  
Provides a reduced (from Option A) lifetime benefit that upon retiree's death continues to retiree's beneficiary. This option is subject to non-spousal beneficiary limitations based on state statute and an Internal Revenue Code formula.

#### Option B

(100% - 100% Joint Retiree/Survivor)  
Provides a reduced (from Option A) lifetime benefit that upon retiree's death continues to retiree's beneficiary. This option is subject to non-spousal beneficiary limitations based on state statute and an Internal Revenue Code formula.

#### Option 1

Provides a reduced (from the Maximum Benefit) lifetime benefit that upon retiree's death continues to retiree's beneficiary. Benefit will not revert to Maximum if all of the retiree's beneficiaries predecease the retiree.

#### Option 2

Provides a reduced (from the Maximum Benefit) lifetime benefit that

#### Optional Allowance

Provides a reduced (from the Maximum Benefit) lifetime annuity that upon the retiree's death will continue at one-third of the retiree's annuity to a non-spouse beneficiary (or in equal shares to multiple beneficiaries).

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SCRS	PORS	GARS	JSRS	NGRS
<b>11. Benefit Options (continued)</b>				
<b>Option C (100% - 50% Joint Retiree/Survivor)</b> Provides a reduced (from Option A) lifetime benefit that upon retiree's death will continue to retiree's beneficiary at 50% of the retiree's annuity.  Note: If a retiree selects Option B or Option C and all of the retiree's beneficiaries predecease the retiree, the retiree's benefit will revert to Option A.	<b>Option C (100% - 50% Joint Retiree/Survivor)</b> Provides a reduced (from Option A) lifetime benefit that upon retiree's death will continue to retiree's beneficiary at 50% of the retiree's annuity.  Note: If a retiree selects Option B or Option C and all of the retiree's beneficiaries predecease the retiree, the retiree's benefit will revert to Option A.	upon retiree's death will continue to retiree's beneficiary at 50% of the retiree's annuity. Benefit will not revert to Maximum if all of the retiree's beneficiaries predecease the retiree.  Revert to Maximum (1A or 2A) This feature will allow benefits to be changed to the Maximum Benefit if the retiree selects Option 1 or Option 2 and all of the retiree's beneficiaries predecease the retiree.		

## 12. Deferred Retirement Option Programs

Upon meeting retirement eligibility, a member can elect to retire and continue working under the Teacher and Employee Retention Incentive (TERI) program for a maximum of five years, after which employment will cease. During TERI participation, the retirement annuity will not be paid to TERI retirees, but monthly benefits will be accumulated in TERI accounts and will be distributed to the members upon termination of employment. For members retiring after June 30, 2005, a payment for unused annual leave is not included in calculating TERI benefits. Upon termination, however, benefits will be increased prospectively to include payment for up to 45 days annual leave paid at termination of employment. No interest is credited to the TERI account. TERI participants who entered the program after June 30, 2005, must continue to contribute at the same rate as active members. Those who entered prior to July 1, 2005, make no employee contributions while participating in	Not applicable	Not applicable	A JSRS member who has not reached age 60, but is eligible to retire and receive the 90 percent maximum JSRS annuity may retire and continue to serve as a judge, solicitor, or circuit public defender. However, the monthly annuity will be deferred, without interest, until the member reaches age 60. Payout of the deferred annuity will be made when the retired JSRS member reaches the normal retirement age of 60.  Employee and employer contributions must continue to be paid while a member is participating in the JSRS deferred retirement program, but no additional service is earned.	Not applicable
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## Actuarial Section

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#### 12. Deferred Retirement Option Programs (continued)

the TERI program. No additional service credit is earned during this period and participants are ineligible for disability retirement benefits.

#### 13. Return to Work Provisions

A retired member of the system who has been retired for at least 15 consecutive calendar days may be hired and return to covered employment without affecting his monthly retirement benefit. The employer and working retiree must remit employer and employee contributions at the same rate as if the member were an active contributing member. Working retirees are not eligible for subsequent disability retirement, will not earn additional service credit, and will have no additional interest credited to their account.

A retired member of the system who has been retired for at least 15 consecutive calendar days may be hired and return to covered employment without affecting his monthly retirement benefit. The employer and working retiree must remit employer and employee contributions at the same rate as if the member were an active contributing member. Working retirees are not eligible for subsequent disability retirement, will not earn additional service credit, and will have no additional interest credited to their account.

An active GARS member who has reached age 70 or has 30 years of service credit may retire and begin receiving a GARS retirement annuity while continuing to serve in office. The retired GARS member will receive a retirement annuity in lieu of a per diem salary and additional line item pay for certain positions. Generally, a retired member of GARS may return to work after retirement with no limit on the dollar amount that may be earned as compensation; however, certain conditions and restrictions may apply to employers covered by SCRS, PORS, GARS and JSRS.

A member who is age 60 and eligible to receive the maximum monthly benefit, may retire and receive a retirement benefit while continuing to serve as a judge, solicitor, or circuit public defender until the end of the calendar year in which the member reaches age 72. Employee and employer contributions must continue to be paid as if the retiree was an active contributing member, but no additional service credit accrues and no additional interest is credited to their retirement account. Additionally, a retired judge may continue to receive a retirement benefit while employed by a public institution of education, provided the judge does not contribute to or receive service credit in SCRS.

Not applicable

#### 14. Post Retirement Increase

Guaranteed increase of up to 1 percent provided that increase in Consumer Price Index as of prior December 31 is at least 1 percent. Increases in excess of 1 percent, up to a total of 4%, may be approved if the CPI increase exceeded 1 percent and if the unfunded liability amortization period for SCRS does not exceed 30 years.

Increase in Consumer Price Index, up to 4%. (Increases are not guaranteed and must be approved annually subject to compliance with statute.)

Retired member receives benefit based on current salary for member's position.

Retired member receives benefit based on current salary for member's position.

Cost-of-living increases are not provided.

## Actuarial Section

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#### 15. Accidental Death Program

Not applicable

Provides 50% of earnable compensation at time of accidental death in the line of duty as an annuity to either the surviving spouse, children, or parents.

Not applicable

Not applicable

Not applicable

#### 16. Group Life Insurance Benefits

- Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active or working retired contributing member with at least one year of service.
- No service requirement for death resulting from an injury arising out of the actual performance of duties for an active member.
- Lump-sum payment to retiree's beneficiary of up to \$6,000 based upon years of service at retirement. TERI participants and working retired contributing members are eligible for an increased group life insurance benefit payment equal to their annual salary in lieu of the standard retired member benefit.

- Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member with at least one year of service.
- No service requirements for death resulting from an injury arising out of the actual performance of duties for an active member.
- Lump-sum payment to retiree's beneficiary of up to \$6,000 based upon year of service at retirement. Retired contributing members are eligible for an increased group life insurance benefit payment equal to their annual salary in lieu of the standard retired member benefit.

- Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member with at least one year of service.
- No service requirement for death resulting from an injury arising out of the actual performance of duties for an active member.
- Lump-sum payment to retiree's beneficiary of up to \$3,000 based upon years of service at retirement.

- Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member with at least one year of service.
- No service requirement for death resulting from an injury arising out of the actual performance of duties for an active member.
- Lump-sum payment to retiree's beneficiary of up to \$3,000 based upon years of service at retirement.

Not applicable

#### 17. Withdrawal of Employee Contributions

Accumulated contributions, plus interest, payable upon request 90 days after termination of all covered employment.

Accumulated contributions, plus interest, payable upon request 90 days after termination of all covered employment.

Accumulated contributions, plus interest, paid as promptly as feasible upon request after termination of all covered employment.

Accumulated contributions, plus interest, paid as promptly as feasible upon request after termination of all covered employment.

Not applicable as this is a non-contributory plan

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